

COUNTY OF DUMFRIES.

FORTY-SEVENTH

ANNUAL REPORT

UPON THE

*Health and Sanitary Condition of
the County.*

1937

AND

Report on School Medical Inspection
and Treatment

For Year ending 31st July, 1938,

BY

JOHN RITCHIE, M.B., Ch.B., M.R.C.P.Ed., D.P.H.
County Medical Officer.

DUMFRIES:

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STAFF, 1937.

COUNTY MEDICAL OFFICER AND CHIEF PUBLIC ASSISTANCE OFFICER.

JOHN RITCHIE, M.B., Ch.B., M.R.C.P.Ed., D.P.H.

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Medical Officers.

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E. B. MUNRO, M.B., Ch.B., D.P.H., Lieut.-Col. I.M.S., Assistant Medical Officer and School Medical Officer.

AGNES F. TURNER, M.B., Ch.B., D.P.H., Assistant Medical Officer and School Medical Officer.

Dentist.

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LUCIA CANDLISH.

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Veterinary Inspectors.

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ADAM GIBB, M.R.C.V.S. (ob. 20/12/37).

JAS. A. McKINNON, B.Sc., M.R.C.V.S., D.V.S.M.

Deputy Chief Sanitary Inspector.

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Sanitary Inspectors.

WM. CRUICKSHANK, Cert. Roy. San. Assoc. Scot.

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Temporary Sanitary Inspectors.

JOHN S. BERRY, Cert. Roy. San. Assoc. Scot.

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(4) HEALTH VISITORS.

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(6) LOCAL GOVERNMENT OFFICERS.

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JOHN JACKSON, Cert. of Roy. San.

Instit. ... (2) Thornhill District.

ALEXANDER ERSKINE, P.L.D. ... (3) Sanquhar District.

ROBERT BELL ... (4) Annan District.

HARRY W. BRYSON ... (5) Gretna District.

WM. MOLLISON, Cert. of Roy. San.

Assoc. Scot. ... (6) Lockerbie District.

JOHN SANSON, Cert. of Roy. San. Assoc. (7) Moffat District.

A. A. OLIVER, Cert. of Roy. San. Assoc. (8) Langholm District.

To

The Department of Health for Scotland.

The County Council of Dumfries.

Ladies and Gentlemen,

I have the honour of submitting my Report for 1937, being the Forty-seventh Annual Report on the Health and Sanitary Conditions of the County of Dumfries.

I also submit the Report on School Medical and Dental Inspection and Treatment for the year ending 31st July, 1938.

I am, Ladies and Gentlemen,

Your obedient Servant,

JOHN RITCHIE,

Medical Officer of Health.

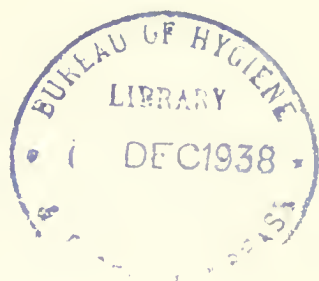
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REPORT.

VITAL STATISTICS.



Population.

The Registrar-General's estimate of the population in the County Landward and Small Burghs at the middle of 1937 is as follows :—

(a) County Landward	...	...	44,409
(b) Burghs—Annan	...	...	3,908
Sanquhar	...	...	1,889
Lochmaben	...	...	1,077
Lockerbie	...	...	2,618
Moffat	...	...	1,976
Langholm	...	...	2,400
Total	...	...	58,277

This is 95 less than the estimate for 1936.

Births.

The births in the County Landward and in the Small Burghs during 1937 were :—

	Births corrected for transfers.	M.	F.	Birth Rate.	Per cent. of Illegitimate Births
County Landward	705	375	330	15	9·7
Burghs—					
Annan	43	22	21		
Sanquhar	26	13	13		
Lochmaben	23	13	10		
Lockerbie	29	17	12		
Moffat	24	11	13		
Langholm	26	16	10		
Total	876	467	409		

This is a decrease of 89 on the figure for 1936, the number of male births having fallen by 32 and female births by 57. The birth-rate—15 per 1000—is 1·5 per 1000 below that for 1936.

Illegitimate births amounted to 9·7 per cent. of the total. On only three other occasions during the present century has this figure fallen below 10, and that for 1937 is 2·9 lower than that of the previous year. Lest this gratifying fall should cause undue elation, I may point out that the figure for all Scotland is only 6·2 per cent.

Deaths.

The number of deaths in the County and Small Burghs, corrected for transfers “in” and “out,” was 852 (males 395, females 457), which is 67 more than in 1936. The death-rate, corrected and adjusted for age and sex distribution, was 14·6 per 1000 living, which is 2·8 above that for 1936. The greater part of the increase is accounted for by the prevalence of influenza, which was responsible for 45 deaths in 1937 and only 4 in 1936.

The numbers, causes, and age-periods of deaths are shown in the following table, arranged under the headings of the Short List of the Intermediate International List of Causes of Death as adapted for use in Scotland :

	All ages	-1	1-	5-	10-	15-	25-	35-	45-	55-	65-	75-	85-
Scarlet Fever	2	...	1	1	...	...	...	...	...	...	...	...	...
Whooping-Cough	1	1	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	3	...	1	1	1	...	...	...	...	...	...	...	...
Influenza	45	1	3	...	...	...	2	3	5	6	9	11	5
Cerebro-spinal fever	6	...	1	1	...	2	...	2	...	...	...	...	...
Other epidemic diseases	1	...	...	...	...	...	...	...	...	...	1	...	...
Tuberculosis of respiratory system.	22	...	...	...	...	3	10	2	2	4	1	...	...
Other tuberculous disease	5	1	1	...	...	1	2	...	...	...	...	...	...
Other infectious and para- sitic disease	5	...	2	...	1	1	...	...	...	...	1	...	...
Cancer (malignant disease)	115	...	1	...	...	...	1	7	15	31	38	20	2
Diabetes mellitus	13	...	...	...	...	...	2	...	...	4	5	1	1
Other general diseases	28	4	1	1	...	1	2	1	2	6	6	3	1
Cerebral hæmorrhage, etc.	97	...	...	...	...	...	1	...	5	25	32	31	3
Other diseases of nervous system.	17	4	1	...	...	...	1	...	2	4	4	1	...
Heart disease	248	...	1	...	...	2	...	4	12	37	83	78	31
Other circulatory diseases	11	...	...	...	...	...	...	...	...	2	2	6	1
Bronchitis.	26	3	...	...	...	...	...	2	1	3	6	7	4
Pneumonia (all forms)	22	7	...	1	1	2	...	1	1	2	2	4	1
Other respiratory diseases	13	1	...	...	1	...	...	1	1	1	4	1	3
Gastric and duodenal ulcer	9	...	...	...	...	...	...	1	...	1	6	1	...
Diarrhœa (all ages)	7	3	1	...	...	...	...	...	1	...	1	1	...
Appendicitis	6	...	...	...	...	...	...	1	1	2	2	...	...
Cirrhosis of liver	1	...	...	...	...	...	...	...	...	...	1	...	...
Other diseases of liver	6	...	...	...	...	...	...	...	1	3	2	...	...
Other digestive diseases	3	1	...	...	...	...	...	...	...	...	...	2	...
Acute and chronic nephritis.	23	1	...	...	...	1	...	1	...	4	11	5	...
Other genito-urinary diseases	4	...	...	...	...	...	...	...	1	1	...	2	...
Puerperal sepsis.	1	...	...	...	...	1	...	...	...	...	...	...	...
Other puerperal causes	7	...	...	...	...	2	1	4	...	...	...	...	...
Diseases of skin and loco- motor system	6	2	1	...	1	...	...	1	...	...	...	1	...
Cong. debility, pr. birth, malformations, etc.	26	25	1	...	...	...	...	...	...	...	...	...	...
Old age	27	...	...	...	...	...	...	...	...	...	...	16	11
Suicide	3	...	...	...	...	1	...	1	1	...	...	...	...
Other violence	34	2	3	...	1	6	4	1	4	2	6	4	1
Causes ill-defined or unknown	9	...	...	...	...	...	1	...	1	2	5	...	...
All Causes	852	56	19	5	6	23	27	33	56	140	228	195	64

There were 56 deaths of infants aged less than 1 year. The infantile mortality is 64 per 1000 births, against 76 in 1936. The rate for Scotland during the year was 80.

Deaths of mothers from puerperal causes numbered 8 (sepsis 1, other causes 7). This is equivalent to a rate of 9.1 per 1000 births, the highest figure that has been recorded for some years, and 3.1 above that for 1936.

The death-rate from tuberculosis (all forms) was 0.46 per 1000 of the population—much the lowest rate ever recorded in the County. The diminution in the mortality from tuberculosis may be more forcibly expressed by the statement that during the first ten years of the present century an average of 121 persons died annually from tuberculosis in the County and Small Burghs. During 1937 the number dying from tuberculosis was 27.

A. GENERAL.

No matters of special general interest arose during the year.

B. GENERAL ENQUIRIES.

No general enquiries other than those found necessary in the course of routine work could be undertaken during the year.

C. WATER SUPPLIES.

The works necessary for the provision of a supply to the Lower Nithsdale and Mid-Annandale District and for the augmentation of that to the Lower Annandale District made progress during the year. A considerable amount of laboratory work was done on samples of water from the various sources of those supplies, which should be of value when the water is in use.

So far as the other Special Water Supply Districts are concerned, nothing noteworthy occurred during the year. The results of the bacteriological analysis of the

supply to the Rowanburn Special Water Supply District, which are generally unsatisfactory, were unusually so during 1937, B. Coli being always found in 1 c.c. and on one occasion in 0.1 c.c. The supply is derived from springs, liable to surface pollution, and inadequately protected against contamination.

Some shortage occurred in various areas during summer, and the need for improved water supply in Upper Annandale was again evident.

D. & E. DISPOSAL OF SEWAGE AND POLLUTION OF RIVERS.

(1) NITHSDALE.—No instance of serious pollution of the upper reaches of the Nith by coal washings was reported during the year.

A complaint regarding pollution of the Mennock Water by sewage effluent was considered by the Committee.

The sewage works at Kirkconnel, Sanquhar, and Thornhill gave no cause for complaint.

On the other hand a complaint, which on this occasion was justified, was received regarding smells from the works at Moniaive. Only a comparatively small part of the houses in the special district were originally connected to the sewers for reasons which are known to the Committee. As a result, only a small portion of the tank space at the works could be brought into use to avoid the danger of over-tanking and producing a septic sewage. As the amount of sewage entering the works gradually increased, it was thought advisable to increase the amount of tank space used, and one of the large sedimentation tanks was taken into circulation. Experience showed, however, that the amount of sewage being treated was still insufficient to justify this, as it slowed the time of treatment sufficiently to permit of septic changes taking place with the production of sulphuretted hydrogen and consequent unpleasant

smells. The large tank was therefore again cut out of circulation and the condition remedied.

(2) ANNANDALE.—As in former years the Lockerbie Burgh sewage works have presented a difficult problem which has not yet been adequately solved. Constant supervision by the Burgh Surveyor and his staff have been necessary to prevent the occurrence of serious nuisance, and it is to their credit that the works function reasonably well.

The Committee again considered the unsatisfactory condition at Springfield, Headless Cross, and Gretna Green, which have no proper drainage system. It was agreed to consider them along with other villages in a similar condition, though the prospect of providing sewers in such places without the aid of Government grants appeared very unpromising.

(3) ESKDALE. — Nothing requiring comment arose during the year.

F. HOUSING.

Improvement in housing is still delayed in many parts of the County on account of lack of adequate water supply. The problem of drainage for new housing sites remains unsolved, and the increased cost of building has also limited housing activities. In hope that a solution for those difficulties may soon be available, the housing survey which was commenced in 1936 has been pushed on, a total of 1146 houses being fully reported on during the year by the two temporary housing inspectors.

Reports on Dumfries Landward, Thornhill, Eaglesfield, Springfield and Gretna Green, Tynron and Chapelknowe were completed for submission to the Committee before the end of the year. Those covered 1094 houses, and on the assumption that "decanting" could be fully utilised, 186 new houses would be required in those areas to replace unfit houses and abolish overcrowding.

Considerable delay has occurred in the completion of the houses at Kelloholm provided for tenants displaced from condemned houses at Crawiek. None were ready for occupation until August, and at the end of the year only 24 tenants had been re-housed.

Negotiations regarding a site for 140 new houses at Kelloholm were carried on during the year. Those are a first instalment of the 193 which, as stated on page 10 of my Annual Report for 1936, are considered necessary to re-house tenants of overerowed or unfit houses in the Kirkeconnel district.

It was also decided to build 24 houses on a site at Kirtlebridge, along with certain houses for County Council employees, and a group of six houses at Thornhill beside the existing Council houses there.

A report on houses belonging to the Council was prepared and submitted to the Committee.

The question of new building bye-laws was considered by the Committee, and suggestions embodying certain modifications of the Model Bye-laws were submitted to the Department of Health.

A report was submitted on the sanitary condition of a terrace containing 23 dwelling-houses in the south of the County. The proprietors submitted proposals for reconstruction which implied the provision of a public drainage scheme. Plans were prepared by the County Engineer. As it seemed very doubtful whether a rate could be imposed on the district sufficient to meet the costs of the works, and as it was understood that a projected road improvement might affect the lay-out, consideration was postponed.

The Report by the Scottish Housing Advisory Committee on Rural Housing in Scotland was carefully considered by the Public Health Committee. This report had been awaited with much interest, as it was felt that a

full and dispassionate investigation into the housing difficulties peculiar to rural areas was greatly to be desired. The Committee's comments on the report were submitted to the Scottish Office, the Department of Health for Scotland, and to Scottish Members of Parliament.

The following is a summary of the work of the year :—

Plans submitted—

New houses to be erected by the County Council ...	11
New houses to be erected by private enterprise ...	8
Alterations and improvements on existing houses, including those under the Housing (Rural Workers) Acts	219
Other plans	44

Houses completed—

Erected by the County Council	26
Erected by private enterprise	14

One thousand four hundred and eighty-three houses were inspected in the course of the year, including those visited in the surveys referred to above. Of those, 1391 were considered, in some respects, unfit for human habitation. 64 representations were made recommending Demolition Orders, and 17 houses were rendered fit without notices under Section 14 (1) of the Housing (Scotland) Act, 1930.

G. HOUSING (RURAL WORKERS) ACTS.

Applications in respect of 199 houses were received, this being an increase of 71 houses on the previous year. The applications in respect of 187 of those were approved during the year.

Reference has been made in previous Annual Reports to the desirability of grants being provided for the erection of new houses instead of for the improvement of existing

ones. The Housing (Agricultural Population) Bill, which was still under discussion by Parliament at the end of the year, makes provision for such grants, but under such restrictions as to applicability, and such limitations as to the assistance available, that it seems somewhat doubtful whether they will go far towards solving the problem. Except in cases where the remoteness of the site makes building operations specially expensive, the cost of renovating an existing house increases with the number and seriousness of its defects. It was hoped that the grants for new houses would be of such amount that to build a new house would be really more attractive to a proprietor than to renovate one which has fallen below a certain standard of habitability. But it seems probable that the cost of renovating even a very unsatisfactory cottage with the aid of the "Rural Workers" grant is likely to be considerably less than that of building a new one with the "Agricultural Population" grant, and this may discourage proprietors from applying for the latter. Even the advantage of having a new house on possibly a better site may not outweigh the greater cost involved. It is to be recollected also that the erection of, for example, a shepherd's house on a new site may involve also provision of a new byre, outhouses, perhaps a new water supply, and similar works for which, of course, no grant is available. In such cases the saving in reconstructing an existing house on the original site where outbuildings are already in existence is obvious.

H. TOWN PLANNING..

There were no formal discussions on this matter during the year.

I. INFECTIOUS DISEASE.

Five hundred and fifteen notifications were received from the County Landward and Small Burghs. This is an increase of 163 on the figure for the previous year, which

was unusually low. The increase is mainly due to the prevalence of scarlatina, of which 231 cases were notified, against 134 in 1936. There was also an outbreak of Sonne dysentery, which helped to swell the figures, and a small outbreak of cerebro-spinal fever, to which reference is made below.

The number of cases of tuberculosis notified was 78—10 more than in 1936, when the notifications had dropped to an unprecedentedly low figure. Even 78, however, compares very favourably with previous years. Prior to 1935 the smallest number ever received was 118. As noted on page 28 the death-rate from all forms of tuberculosis during 1937 was only 0·46 per 1000—a record low figure for the County.

The cases notified, the districts in which they occurred, and the age-periods affected are shewn in the following tables :—

	Dumfries	Thornhill	Sanquhar	Annan	Gretton	Lockerbie	Moffat	Langholm	Total
Cerebro-Spinal Fever ...	1	6	...	...	...	...	...	...	7
Continued (Undulant) Fever	1	...	...	...	...	...	...	...	1
Diphtheria	29	5	14	6	...	7	...	2	63
Dysentery	4	...	...	...	...	...	25	...	29
Erysipelas	4	3	...	4	2	7	1	2	23
Malaria	1	...	...	...	...	...	...	...	1
Ophthalmia Neonatorum ...	1	...	2	...	1	4	1	1	10
Pneumonia (Influenzal) ...	19	...	4	8	...	4	2	...	37
Pneumonia (Acute Primary)	10	...	1	4	...	...	...	5	20
Puerperal Fever ... ..	...	...	1	...	...	...	...	...	1
Puerperal Pyrexia	3	1	...	2	3	3	...	2	14
Scarlet Fever	42	70	16	44	14	15	2	28	231
Tuberculosis (Pulmonary) ...	17	6	10	5	4	4	4	5	55
Tuberculosis (Non-Pulmonary)	4	3	2	...	5	3	1	5	23
Total	136	94	50	73	29	47	36	50	515

Age-Periods.

	At all Ages	-1	1-5	5-15	15-25	25-45	45-65	65+
Cerebro-Spinal Fever ...	7	...	2	1	2	2	...	...
Continued Fever (Un- dulant)	1	...	...	...	1	...	...	...
Diphtheria	63	2	7	27	17	5	5	...
Dysentery	29	...	4	11	2	8	...	4
Erysipelas	23	1	1	...	1	7	12	1
Malaria	1	...	...	...	...	...	1	...
Ophthalmia Neonatorum	10	10	...	...	...	...	...	...
Pneumonia—								
Acute Influenzal ...	37	1	2	2	...	9	13	10
Acute Primary ...	20	1	...	4	3	5	3	4
Puerperal Fever ...	1	...	...	...	...	1	...	...
Puerperal Pyrexia ...	14	...	...	...	6	8	...	...
Scarlet Fever	231	1	47	141	22	17	3	...
Tuberculosis—								
Pulmonary	55	...	2	7	15	20	9	2
Non-Pulmonary ...	23	1	4	7	2	6	3	...
Total	515	17	69	200	71	88	49	21

Enteric Fever.—No cases of enteric were notified in 1937.

Since the Ecclefechan epidemic in 1930 there has been very little enteric fever in the County, the largest number of cases in any year having been 7 in 1933. But the experience of other places, notably Bournemouth and, more recently, Croydon, has emphasised, if any emphasis were needed, the necessity for constant vigilance to prevent outbreaks of this disease. Speaking broadly, enteric, in its epidemic form, is spread by infected water or food, especially milk, and the infection is always derived, directly or indirectly, from a previous case or a carrier. The whole business of prevention consists in taking such precautions as will, at all times, make it impossible for such infection to occur. So far as water is concerned, there is still a good deal of misapprehension on the part of the public. Many people appear to believe that waters can be permanently classified as “good” or “bad,” the former suitable for drinking, the latter capable at any

time of causing disease. As a matter of fact, a "bad" water—that is, one which gives bad results on chemical and bacteriological examination—may be drunk for years with apparent impunity. The "bad" water is condemned, not because it has been proved capable of spreading disease, but because it has been shown to be liable to pollution, and there is always the possibility that that pollution may on some occasion be of a dangerous sort. On the other hand, the good water which has been analysed many times and always found satisfactory may nevertheless at some time and under some combination of circumstances be accidentally polluted with Typhoid Bacilli and give rise to an epidemic. If so polluted, a water which is generally above suspicion can spread the disease just as easily as one which is always grossly fouled.

It is obvious, then, that the suitability of a water for human consumption depends not only on its original purity but on the extent to which it is protected against the risk of accidental pollution. The principal safeguards are a clean source, sufficient storage and efficient filtration, with chemical treatment as a stand-by if necessary. No one of those is sufficient in itself. A clean source may be accidentally polluted, an unusually high consumpt may reduce the period of storage beyond that required for purification, the filtering arrangements may break down, but it is most unlikely that all those accidents will ever occur at the same time—that all three lines of defence will give way simultaneously. It follows, then, that a community with a water supply guarded as indicated will be practically safe against the menace of water-borne disease—unless, indeed, the water is polluted after filtration and before it reaches the consumer. On the other hand, those who depend on a single safeguard—for instance, a clean source—as guaranteeing the purity of their drinking water, may find that some temporary accident destroys their only defence, and have to pay, in disease and death, for their over-confidence. It is satisfactory that all the consumers in the Lower Nithsdale

and Mid-Annandale and the Lower Annandale Special Water Supply Districts will in future be supplied with water which will come from clean gathering grounds, will be stored for an adequate time, and, finally, efficiently filtered before it is sent into circulation for dietetic use.

The protection of the milk supply is a different problem. Enteric fever, diphtheria, scarlatina, and septic sore throat are examples of diseases spread by milk in which infection is derived from a *human* source—that is, from some infected person engaged in handling milk during production or distribution. Unfortunately, such persons are not always easily recognisable, and although it is an offence for a dairyman to allow anyone suffering from infectious disease to handle milk, it is impossible for him to recognise a very mild case whose symptoms have been trifling and transient, or a carrier who probably has no symptoms at all.

It is, in fact, impossible to guarantee that even the most careful methods of milk production can eliminate the risk of milk being infected, on occasion, from a human source, and this is one of the reasons why an increasingly large number of public health workers are becoming convinced that all milk used for human consumption should be pasteurised. There can be no doubt that general pasteurisation would afford a very real protection against milk-spread infection, as none of the organisms commonly associated with this are capable of surviving the process if it is carried out properly.

Certain objections to pasteurisation require consideration. In the first place, it is stated that pasteurisation reduces the vitamin content of milk. So far as is known, however, the only vitamin materially reduced is Vitamin C—the substance which protects against scurvy—and the destruction is not complete, amounting only to about 50 per cent. Milk is not a specially valuable source of this vitamin, which is derived mainly from fresh fruit and vegetables, and its reduction in milk is not important in

the case of older children and adults who have a mixed diet and thus obtain the necessary supply from other sources. It is, however, a point to be considered in the case of infants who are fed mainly on milk, and to whom the deprivation of Vitamin C may be important. The difficulty can be easily got over, however, by the addition of a little orange juice to the infant's diet, and in view of the fact that the Vitamin C content even of raw milk is small and variable, this is generally done. While the question cannot be regarded as finally settled, the consensus of opinion appears to be that pasteurised milk is as valuable an article of diet as raw milk for children and adults, and can be made equally valuable for infants by a simple addition of vitamin-containing substances.

An objection of a different sort is that the general adoption of pasteurisation would remove the incentive to clean dairying, as all milk, irrespective of its condition, could be marketed after being pasteurised. This is a point of considerable importance. While it is not probable that those dairymen who have been influenced by modern ideas, and learned how to produce clean milk, would revert to the unsatisfactory methods which formerly were almost universal, it is possible that those who have not yet come up to modern standards might feel that there was no special inducement to reform so long as they could dispose of their milk by having it pasteurised. The difficulty can be met, in theory at least, by imposing a sufficiently strict pre-pasteurisation standard, but this, of course, entails a very large increase in the bacteriological work at present carried on by Local Authorities. Unless that work could be done constantly and consistently, the pre-pasteurisation standard would be an illusory safeguard.

In fact, methods for protecting water and milk from infection have this in common—it is unwise to depend on a single line of defence. If the general adoption of pasteurisation led to less care in dairying, pasteurisation would become the main line of defence between the consumer and infection. Should any break-down take place

—and pasteurisation, being a process under control of fallible human beings, is not exempt from that risk—the chance of infection becomes obvious. It should be clearly understood that the general adoption of pasteurisation would not justify any slackening in the campaign for improved dairy methods. On the other hand, improved methods will not, in themselves, protect the milk supply against occasional infection from human sources. It is not a question of clean dairying and of pasteurisation as alternative methods, but of the combination of both safeguards to prevent milk-borne infection.

The other great problem in the prevention of typhoid fever is the control of the typhoid carrier. This matter was discussed at length by the Public Health Committee in 1930 and in 1932, and I need not deal with it here. The Committee made representations to the Department of Health as to the need for extended powers for dealing with carriers, and the Scottish Branch of the Society of Medical Officers of Health also took the matter up. There have been no results of those discussions so far, but it is hoped that they may bear fruit in time.

The statistics of the notified cases of Enterica in the County and Small Burghs during the last five years have been :—

			1933.	1934.	1935.	1936.	1937.
Cases	...	...	7	...	3	1	...
Deaths	...	...	...	...	...	...	...
Morbidity per 1000	...	0·12	...	0·06	0·02	...	...
Mortality per 1000	...	...	...	...	...	...	...
Case-fatality per 1000	...	...	...	...	...	...	...

Scarlatina.—The number of cases notified was 231, an increase of 97 on the previous year. The increase was most evident in the Thornhill District, where there were 70 cases, as against 34 in the previous year. Dumfries District also shewed a greater prevalence, as did Sanquhar, Annan, and Langholm Districts. Gretna and Moffat

shewed little change from the low incidence of 1936, while in Lockerbie District the number of cases fell from 31 to 15.

Thornhill District again had more than its quota of Scarlatina, about 30 per cent. of the total cases being from that district.

Multiple house infection was noted in 33 cases, 2 members of the household being affected in 20 instances, 3 members in 8 instances, 4 in 2 instances, and 5 and 6 in 1 and 2 instances respectively. In the last two categories, however, the diagnosis in regard to at least some of the patients was doubtful.

There were 3 return cases—1·3 per cent., as against 1·4 per cent. in 1936.

The largest individual outbreaks were in Morton—mainly in the village of Thornhill—where 36 cases occurred, mostly during the first half of the year, and in Closeburn, where 19 cases, principally from Cample, were notified between the end of July and Mid-October. During the early part of the year 10 cases occurred in Kirkmichael, part of the County which has been fairly free from Scarlatina in recent years.

A small outbreak of Scarlatina occurred in Langholm Burgh and the vicinity towards the end of the year. There were 26 cases in all (21 burghal, 5 rural) from 15 households in the Burgh and 3 in the County area. Of the patients, 14 were male and 12 female. Half the total—13—were children of school age, 8 were younger children, and 5 were adults.

It had been hoped that Langholm might be fairly resistant to Scarlatina for some time to come as a result of its experience in 1934-35, during which years 138 cases of Scarlatina were notified from the district. Evidently the immunity which was presumably acquired then has been insufficient to protect the community against a recrudescence three years later.

The earliest case of which information was available was an adult who suffered from an atypical attack not recognised as Scarlatina for some time. He was going about his work for about a week at the beginning of the outbreak and at a time when he was presumably infective. There is, however, no reason to suppose that he was in personal contact with any of the persons who afterwards developed Scarlatina, and the evidence, in my opinion, is against his having been the cause of the outbreak. There was nothing to indicate that infection was being spread by any milk supply. School and home contact appear to have been responsible for the spread.

Of the 231 patients notified, 220 were removed to hospital. The remaining 11 were either cases that could be satisfactorily isolated at home, atypical cases not diagnosed until desquamation, and one (fatal) case which when first seen was obviously unfit for removal.

The statistics of Scarlatina in the County and Small Burghs during the last five years have been :—

			1933.	1934.	1935.	1936.	1937.
Cases	...	...	144	376	202	134	231
Deaths	...	...	1	4	...	3	2
Morbidity per 1000	...	...	2·4	6·5	3·4	2·3	3·9
Mortality per 1000	...	...	0·02	0·07	...	0·05	0·03
Case-fatality	...	...	6·9	10·6	...	22·4	8·6

Diphtheria.—The number of cases notified was 63, an increase of 8 on that for 1936 and 17 less than the number in 1935.

Most of the cases were sporadic, the only localised outbreaks being a group of 8 cases in Kirkcconnel during the spring, and one of 10 cases in Holywood during October and November. The latter was of some psychological interest. It appears to have been caused by a carrier, who, it was ascertained, had been in ill-health for about a month. The two cases first notified were severe and ended fatally. This, naturally, caused a certain amount

of disquiet in the neighbourhood, but hardly explains the panic that developed later when, despite the fact that the cause had been discovered and removed and that the outbreak was almost certainly over, parents continued to keep their children from school to such an extent that the attendance fell almost to vanishing point, and it was necessary to close the school from 8th till 22nd November and to carry out a ceremonial disinfection of the premises before public confidence was restored.

As evidencing the public interest now being taken in the prevention of Diphtheria, it is interesting to note that a communication was received from one of the local branches of the Educational Institute of Scotland asking the Public Health Committee to consider the desirability of initiating a scheme for immunising school children against Diphtheria. The Committee, after consideration, decided that action should be delayed meantime.

This is a question of great public importance, and there is good reason to believe that immunisation may eventually prove to be a factor of value in reducing the incidence of Diphtheria. It is possible, however—it has often happened in the past—that a valuable process may be discredited if claims are made for it which cannot be substantiated. Caution is particularly necessary in the case of Diphtheria, a disease which shows great variations of type and incidence. Those variations, which are natural to the disease, may easily be mistaken for the results of preventive activities, and careful and prolonged study are necessary to avoid this error.

It is unnecessary to discuss the scientific aspect of the question here, but the general position is briefly—

(a) There is good evidence that an individual who has been immunised against Diphtheria has a better chance of escaping the disease than one not immunised.

(b) There is good evidence that in closed or semi-isolated communities—boarding schools and institutions of the sort—the incidence of Diphtheria may be reduced by immunising the inmates.

(c) Regarding the general population, the evidence is by no means so clear, and some of the claims that vigorous immunisation campaigns have stamped out Diphtheria in various communities appear to have been premature. The history of epidemiology suggests the advisability of reserving judgment in such matters until the evidence is as extensive and complete as possible. The question is, nevertheless, of such importance that it ought to be studied on a national scale, and on lines which so far as possible would eliminate the grosser possibilities of error. It seems doubtful whether this can be attained by allowing individual local authorities to adopt schemes of immunisation which may differ considerably in method and extent, and which may produce data that are not really comparable. It is, of course, impossible that any large-scale investigation in public health can be made under the controlled conditions essential to a scientific experiment as the number of variable factors inevitably present is so great, but the more nearly those conditions are approached the more valuable will be the results of enquiry. Individual authorities, whose staffs are already busy with multifarious duties, can scarcely deal adequately with all aspects of what is really a very difficult and far-reaching problem. Direction and assistance from a central authority seem desirable, and it would be well that those should be available before some dramatic outbreak of Diphtheria, and the consequent public outcry, force health authorities to hasty action. It should be recognised that much of the most useful information about epidemics may be gained in inter-epidemic periods.

The statistics of Diphtheria in the County and Small Burghs during the last five years have been :—

				1933.	1934.	1935.	1936.	1937.
Cases	...	...	...	31	79	80	55	63
Deaths	...	...	...	2	5	5	3	3
Morbidity per 1000	...		...	0·6	1·3	1·3	0·9	1·1
Mortality per 1000	...		...	0·03	0·08	0·08	0·05	0·05
Case-fatality per 1000	...		...	64	63	63	54	47

Dysentery.—Twenty-nine notifications were received. This disease has been notifiable since 1919, but as a rule few notifications are received. No case had been notified in the County since 1933, and the average annual notifications for all Scotland have been, in recent years, only about 450. This is natural enough, as the name “dysentery” is usually associated with the tropical form of the disease, which is a serious malady. It is now recognised, however, that a form of dysentery, generally mild, exists in this country. Its true nature may easily be overlooked, and it is probably much commoner than the notifications suggest.

A child from Kirkmichael was admitted to the Dumfries and Galloway Royal Infirmary on 6th November, on account of acute abdominal symptoms, and I was informed that other members of his family were also affected. Enquiry at the house confirmed this, and bacteriological examination showed that the disease was dysentery of the Sonne type. No other cases were reported from the neighbourhood.

During November a practitioner in Moffat informed me that a number of cases of what were classed as “gastric influenza” were occurring in the vicinity. Investigation of those shewed that some at least were Sonne type dysentery.

Further enquiry shewed that cases were occurring in various parts of the County. They were generally so mild in type that they roused no special attention. A circular was sent to all medical practitioners in the County drawing attention to the prevalence of Sonne dysentery and to the facilities for bacteriological examination provided in the County Laboratory.

The outbreak was of scientific interest rather than of practical importance. In the great majority of cases illness lasted for only two or three days and the symptoms were mild.

No common source of infection could be discovered, and, if the outbreak was really as wide-spread as it appears to have been, the existence of such a common source is scarcely credible.

Only one case was removed to hospital—a domestic servant, for whom domiciliary nursing was not available. She made a good recovery.

Cerebro-Spinal Meningitis. — Seven notifications were received. This appears to be the largest number ever reported in the County in a single year.

Six cases occurred in the Thornhill District during the period between the end of April and the end of August. As is generally the rule when this disease appears in a civilian population, the cases occurred at considerable intervals and without demonstrable connection. The accompanying diagram shows their geographical distribution and the dates of onset. Four of the patients were males, two females, and their ages varied between fourteen months and forty-four years. The diagnosis was confirmed by bacteriological examination in five cases, and in the sixth, although the causative organism was not demonstrated in the cerebro-spinal fluid, there was no doubt as to the nature of the malady.

With the exception of the last two cases, which occurred in Thornhill village, no connection could be traced between the patients.

Cerebro-Spinal Meningitis is essentially a carrier borne disease. It is not spread by water, milk, foodstuffs, or by insect vectors—there is, in fact, no evidence that it can pass from one person to another except by “droplet infection,” caused by coughing, sneezing, etc., just as is the case in coryza, influenza, or measles. But while many people are susceptible to those conditions, only a few seem to be susceptible to the infection of Cerebro-Spinal Meningitis. Why this should be so is still obscure, but

Cerebro-Spinal Meningitis. 1937.

3 ●

5.6
00 (Thornhill).

1 ●

2 °

 $\frac{1}{2}'' = 1 \text{ mile.}$

4 ●

Date of Onset:-

1	28	4	37.
2	8	5	"
3	3	6	"
4	25	7	"
5	6	8	"
6	30	8	"

● = Died

it has been well established that when the disease is prevalent a high proportion of the population may become carriers for a time, though only a very small proportion develop the disease. In consequence it is generally impossible to trace the spread of infection, and almost equally impossible to devise preventive measures with any reasonable hope of success except perhaps in military outbreaks, when the population at risk is under discipline and can be closely supervised. This is the more unfortunate, as the case-fatality of Cerebro-Spinal Meningitis is high—generally in the neighbourhood of 70 per cent. Modern methods of treatment, however, may reduce this materially, and the most effective means at our disposal for combating the disease are the provision of facilities for early diagnosis and removal to hospital, where serum treatment can be begun as quickly as possible.

The case-fatality in the Thornhill outbreak was 50 per cent.

The report on Tuberculosis will be found on page 28.

The other infectious diseases notified during the year require no special comment.

K. SCHOOL CLOSURE.

As noted above, Holywood School was closed from 8th till 22nd November.

L. LIST OF HOSPITALS.

M. BRIEF REVIEW OF THE HOSPITAL POSITION IN THE AREA.

The discussions between the Directors of the Dumfries and Galloway Royal Infirmary and the representatives of local authorities in south-west Scotland were continued during 1937, and it is hoped that some definite conclusion as to future policy may be reached in the current year.

Little advance was made on the proposal that a central hospital for all infectious diseases should be provided at Lochmaben, until, at the end of the year, the question was re-opened. At the time of writing it is being again considered, and it is to be hoped that definite proposals will soon take shape. This reform is long overdue, the present system is wasteful, and its insufficiency for modern requirements becomes more evident yearly. The local authority at present maintains 108 beds divided between 4 small hospitals, yet it is frequently difficult to find accommodation for patients even though many beds may be unoccupied. This is due partly to the fact that patients suffering from different infectious diseases must not be mixed in the same ward, and partly to lack of sufficient nursing staff to utilise all the existing beds at one time. The annual and seasonal variations in the need for isolation accommodation are much smaller in regard to the County as a whole than in any of the districts originally served by the existing hospitals, and in consequence an hospital serving the County as a whole could work on a smaller margin of beds to meet those variations than four small hospitals can. Moreover, such a central hospital could be worked by a smaller nursing staff than would be necessary to utilise the same number of beds divided between four small hospitals. Centralisation, again, permits of much fuller utilisation of "barrier nursing," enabling more diseases, and also "doubtful," "observation," or "septic" cases, to be dealt with without undue waste of space.

The following table shews the work done in the County isolation hospitals during the year :

			Lochmaben.	Annan.	Thornhill.	Eskdale.	Total.
Total admissions	...	...	109	80	107	12	3·08
Total discharges	...	...	106	75	110	7	298
Total deaths	...	...	7	2	5	...	14
Average detention (days).....			40·2	30	35	26	...
Average beds occupied	...	...	12·8	7	12	4·5	...
Highest number	...	...	27	22	21	10	...
Lowest number	...	...	1	1	1	1	...
Surgical operations under general or spinal anæsthesia			1	...	...	...	...
Other operations			...	...	...	...	...

N. AMBULANCE SERVICE.

The ambulances owned by the County Council are :—

Motor Ambulances, 3—at Lochmaben, Annan, and Thornhill Hospitals.

Horse Ambulance, 1—at Eskdale Hospital.

Of those, only the motor ambulance at Lochmaben is a modern vehicle suitable for the work. That at Annan was originally a makeshift. It is of obsolete design, and uncomfortable both for patients and nurses. That at Thornhill was purchased second-hand in 1936, as a temporary measure, pending re-arrangements of the hospital service. A considerable amount of expense has already been incurred to keep it running. It is neither wind nor water tight, and so uncomfortable that a journey of any extent becomes a *via dolorosa* on which periodic halts must be made to permit the inmates to recover from nausea. It is to be hoped that it may not be necessary to use it much longer.

The horse ambulance at Eskdale Hospital can be used only for removal of patients from Langholm Burgh or its immediate vicinity. The difficulty in getting a horse and the amount of time wasted in transport make it useless for patients at a distance. For them the Lochmaben or the Annan ambulance must be used.

O. OUT-PATIENT SERVICE.

The only service falling into this category is that given at Kirkbank Clinique, which is described below.

P. MEDICAL CARE AND NURSING OF THE SICK POOR.

No material change has been made on the arrangements described in former reports.

Q. VENEREAL DISEASES.

Dr Robertson reports as follows :—

During the year ending 31st December, 1937, 108 new cases attended the Clinic at Kirkbank.

Of these 15 (9 male, 6 female) were Syphilis.

72 (64 male, 8 female) were Gonorrhœa.

20 (12 male, 8 female) were Non-specific Venereal.

1 (male) was Non-Venereal.

Four of the Syphilis cases were inherited.

Eighty-four old cases attended for further treatment or observation.

The total of new cases remains practically the same as in 1936. The proportion of Gonorrhœa to Syphilis is almost 5 to 1.

Attendances were 1241, the total being decreased by the fact that several cases who lived at a distance, which made regular attendance too expensive owing to fares, meals, etc., were treated by their own doctors with material supplied from the Clinic.

As regards treatment, that of Syphilis has been on the usual lines of Arsenic and Bismuth, supported as occasion arose by Mercury and Iodine. In the treatment of Gonorrhœa a notable advance has occurred. The discovery of a remedy which would do for Gonorrhœa what Ehrlich's "606" (1909) and "914" (1913) arsenical drugs have done for Syphilis has long been awaited. With the production of Sulphanilamide by the German chemist Domagk, and of its derivatives, Uleron and "M & B's 693," it would appear that at least a very important forward step has been taken in the direction of obtaining a specific remedy for Gonorrhœa. Whether the many remarkable results obtained as regards rapid disappearance of symptoms, and of the infecting organism, are permanent, only time will show, and only by collating reports of all cases so treated, whether successfully or not, can a definite verdict be pronounced. Meanwhile there is strong reason for believing that a remedy has been discovered which will reduce the duration of treatment to a fraction of that required at present, with the additional advantage of oral administration, which saves the patient being "tied" to the neighbourhood of a clinic for daily irrigation, often inconvenient or impossible for those working at a distance.

R. TUBERCULOSIS.

The total number of notifications of Tuberculosis—78—is 10 above that for the previous year, but is still much below the average, being, in fact, the second lowest figure ever recorded for the County. It is 37 below the average for the decade 1928-37.

The statistics of notification from 1914 onward are given in the following table :—

Year.	Total Notifications.	Pulmonary.	Non-Pulmonary.	Rate per 1000.
1914	..... 131	83.2%	16.8%	2.4
1915	..... 134	66.4%	33.6%	2.5
1916	..... 198	71.7%	28.3%	3.4
1917	..... 171	68.4%	31.6%	2.6
1918	..... 157	74.5%	25.5%	2.4
1919	..... 139	68.3%	31.7%	2.3
1920	..... 127	74.0%	26.0%	2.2
1921	..... 138	70.0%	30.0%	2.3
1922	..... 118	68.6%	31.4%	2.0
1923	..... 134	63.4%	36.6%	2.3
1924	..... 151	58.9%	41.1%	2.5
1925	..... 156	70.0%	30.0%	2.6
1926	..... 140	50.0%	50.0%	2.3
1927	..... 138	60.1%	39.9%	2.3
1928	..... 146	66.4%	33.6%	2.4
1929	..... 148	54.7%	45.3%	2.5
1930	..... 134	56.0%	44.0%	2.3
1931	..... 121	53.7%	46.3%	2.0
1932	..... 123	53.7%	46.3%	2.1
1933	..... 118	55.9%	44.1%	2.1
1934	..... 119	60.0%	40.0%	2.2
1935	..... 94	54.2%	45.8%	1.6
1936	..... 68	66.2%	33.8%	1.2
1937	..... 78	70.5%	29.5%	1.3

The death-rate from all forms of Tuberculosis was 0.46 per 1000. This is the lowest death-rate hitherto recorded. The Pulmonary and Non-pulmonary rates were 0.38 and 0.08 respectively.

The fall in the death-rate from Tuberculosis since 1891 is shewn in the following table :

	Pulmonary.	Non-Pulmonary.	Total.
1891-1910 (mean)	1·647	0·692	2·339
1911-1920 (mean) . . .	1·028	0·353	1·381
1921	0·839	0·117	0·956
1922	0·859	0·214	1·073
1923	0·910	0·240	1·150
1924	0·699	0·290	0·989
1925	0·921	0·301	1·222
1926	0·693	0·270	0·963
1927	0·722	0·387	1·109
1928	0·828	0·236	1·064
1929	0·510	0·209	0·719
1930	0·543	0·156	0·699
1931	0·46	0·34	0·79
1932	0·62	0·12	0·74
1933	0·42	0·28	0·70
1934	0·49	0·21	0·70
1935	0·32	0·21	0·53
1936	0·43	0·15	0·58
1937	0·38	0·08	0·46

Dr Robertson reports as follows :—

During the year ending 31st December, 1937, 78 notifications were made to this department.

Of these 55 (24 male, 31 female) were Pulmonary, and
23 (12 male, 11 female) were Non-pulmonary.

The Non-pulmonary cases comprised :—

Superficial Glands	6
Abdomen	7
Bones and Joints	3
Spine	1
Lupus	1
Other Parts and Organs ...	5

23

Occupational Incidence.

School	...	...	...	...	...	...	14
Domestic	...	...	...	...	...	...	20
Farm Work	...	...	...	...	...	...	4
Labourer	...	...	...	...	...	...	3
Clerical	...	...	...	...	...	...	4
Railway Worker, Miner, School Teacher, Postman, Groom, Shopman, Nurse (hospital), Riveter (each)							1
Total	...	...	...	...	...	...	53

Disposal of Cases.

Admitted to Sanatorium or Hospital	...	...	...	45
Previous Treatment in Sanatorium or Hospital			...	7
Inmates of Crichton Royal Institution	...	...	...	9
Left County	...	...	...	3
Died	...	...	...	16
				—
Total	...	...	...	80

S. MATERNITY AND CHILD WELFARE AND SCHOOL HEALTH SCHEMES.

(1) MIDWIVES (SCOTLAND) ACT, 1915; MIDWIVES AND
MATERNITY HOMES (SCOTLAND) ACT, 1927.

Notice of intention to practice in the County and
Small Burghs was given, as required by Section 18 of
the principal Act, by 15 midwives.

The following is an extract from the return made to
the Department of Health for Scotland for 1937 :—

	Total in Area.	In Midwives' Practice,
Births...	814	64
Deaths within 10 days of Birth	18	...
Cases of Ophthalmia Neonatorum	10	...
Cases of Puerperal Sepsis	1	...
Deaths from Puerperal Sepsis	...	...
Cases of Puerperal Pyrexia	14	...
Deaths from Puerperal Pyrexia	...	...
Still-births	30	...

Medical aid was summoned by midwives under Section 22 of the Midwives (Scotland) Act, 1915, in 8 cases.

Nine expectant mothers were admitted to hospital.

Twenty domiciliary visits to Midwives and 20 visits to District Nurses were made during the year.

Maternity Homes.—There are no registered Maternity Homes in the County. Moffat Cottage Hospital, which has a maternity ward, is exempted from registration under Section 15 (1) (a) of the 1927 Act.

(2) NOTIFICATION OF BIRTHS ACTS, 1907-1915.

The total number of births notified in the County and Small Burghs was 814. This includes 30 still-births, which are notifiable though not registered.

In addition, transfers regarding 160 infants under 1 year and 80 children aged 1 to 5 years were received from other authorities.

(3) VISITATION AND SUPERVISION.

The total number of domiciliary visits paid by Health Visitors and District Nurses during the year was 33,795, of which 28,251 were under the Maternity and Child Welfare Scheme. The following table shews the distribution of the work :—

STATUTORY DUTIES OF NURSES AND HEALTH VISITORS. Visits during 1937.

Quarter	Tuberculosis.	Maternity.				Children (Under one year).	Children (1-5 years).	School Children.	Total.
		Anto-Natal.		Post-Natal.					
		First Visits.	Re-visits.	First Visits.	Re-visits.				
1	355	135	344	113	1,532	2,412	2,568	1,073	8,532
2	315	135	398	130	1,730	2,568	2,817	1,020	9,113
3	221	120	314	125	1,565	2,124	2,220	783	7,472
4	338	130	430	135	1,607	2,362	2,235	1,439	8,678
Totals	1,229	522	1,486	503	6,434	9,466	9,840	4,315	33,795

The chart on page 34 shews the fall of the infantile mortality-rate since the beginning of the present century.

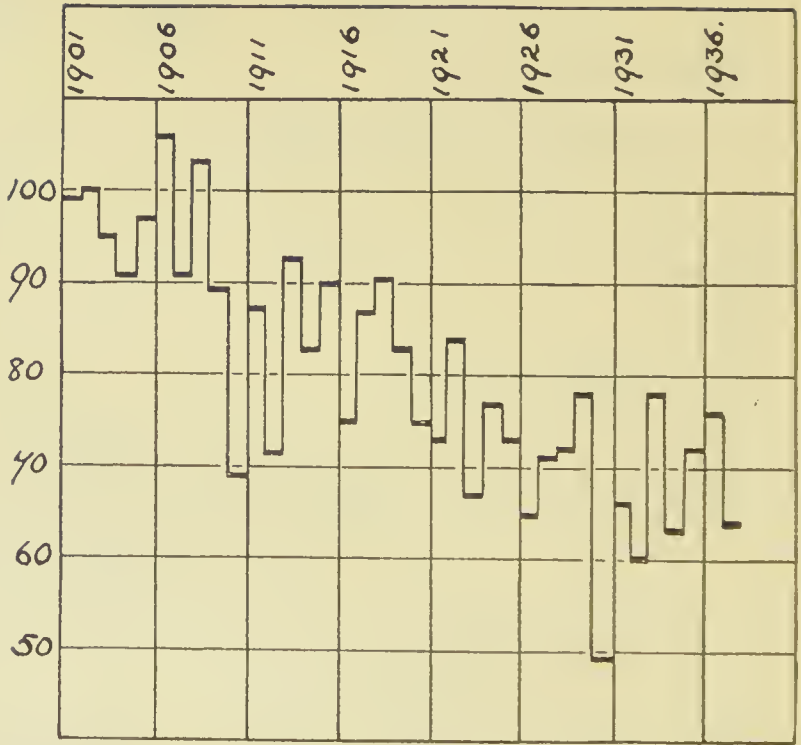
1937.					Mothers.	Children.
1. Number of persons supplied with Liquid Milk and other Food Preparations					58	123
2. Liquid Milk (total quantity supplied) :—						
Grade—Certified (gallons)					98	575½
Grade—Tuberculin Tested (gallons)					586½	885
Grade—Non-graded (gallons)					616½	998½
3. Other Food Preparations* :—						
Ovaltine, Meat Juice, Virol, Eggs, Cod Liver Oil and Malt, Sister Laura's, Oranges					44	56
Virol only						23
Cod Liver Oil and Malt only					1	1
Allenbury's						1
Bengers'						1
Eggs only						1
4. Total Cost to Local Authority :—						
Milk and Eggs					£509 19 0½	
Other Food Preparations					29 0 3	
Total					£538 19 3½	
Amount recovered by Local Authority					1 0 0	
Net Cost					£537 19 3½	

* Note.—Many of the recipients of other Food Preparations were also receiving Milk.

Fifteen school children are included in the above numbers. Those are mostly children who had been in receipt of milk, etc., under the Maternity and Child Welfare Scheme before reaching school age.

MATERNITY SERVICES (SCOTLAND) ACT, 1937.

This Act came into operation on 16th May, 1937, and the arrangements necessary to put it into force were the subject of discussion by the Public Health Committee and the County Nursing Association. As those discussions were still in progress at the end of the year, it is unnecessary to deal with the question in any detail at present, but the following notes on its general aspect are submitted.



Infantile Mortality :
Deaths. per 1000 births.

The Act requires that for women who are to be confined in their own homes, and who apply for the service, there must be available the joint care of a medical practitioner and of a certified midwife throughout pregnancy, labour, and the puerperium.

There are already a number of certified midwives in the County employed as District Nurses by various Local Nursing Associations. Although no doubt there are disadvantages in a scheme by which a nurse who may be called upon to undertake any kind of nursing duty is also employed as a midwife, nevertheless it would be impracticable in rural areas to employ women as midwives only, and some arrangement by which one nurse does all the work in her district seems necessary. It was soon realised, however, that there are difficulties in employing the nurses appointed by the Local Nursing Associations as at present constituted. In the first place, certain parts of the County have no such associations. Caerlaverock, Johnstone, Middlebie, Wamphray, the greater part of Dumfries landward, and the village of Wanlockhead fall into this category, and all attempts to establish nurses in those areas have, so far, been unsuccessful. Further, the areas served by the existing associations and the amount of work which each nurse has to do vary greatly. One, for example, has a population of 646, a total of 11 births during 1936 and 3 tuberculous persons requiring supervision. Another has a population of 3962, 73 births in 1936 and 32 tuberculous persons under the nurse's care. In each instance one nurse has to do all the work. Again, the question of providing relief during times of special stress and in the holiday season presents difficulties. Some of the associations have arranged to co-operate in this matter, others have not found it practicable to do so.

Reconsideration of the existing system seems necessary as a preliminary to elaborating a scheme for the administration of the Maternity Services Act, and in this connection it is well to remember that much of the work for which

the Nursing Associations were originally founded has been taken over by the local authority and is paid for out of the rates. When the Maternity Services Act is in operation the "statutory" nursing duties, for which the local authority is responsible, will comprise:—

- (a) All duties connected with Pregnancy, Parturition, and the Puerperium.
- (b) All duties connected with Maternity and Child Welfare.
- (c) All duties connected with the Medical Inspection and Treatment of School Children.
- (d) All duties connected with Domiciliary Care and Nursing of the Sick Poor.
- (e) All duties connected with the Domiciliary Nursing of Tuberculosis.
- (f) Duties connected with the Domiciliary Nursing of Infectious Diseases generally may also be undertaken by the Local Authority, and it is to be observed that the term "infectious disease" has to-day a much wider significance than it had when the Public Health (Scotland) Act, 1897, was passed.

There still remain certain kinds of nursing work which lie outwith the scope of the "statutory" duties, but are of great value and importance, and are carried on at present by the Nursing Associations. It will be necessary to see that any future arrangements made entail no restriction of those.

T. MILK & DAIRIES (SCOTLAND) ACT, 1924, AND ASSOCIATED ORDERS.

The following report was prepared by Mr G. A. Sangster, M.R.C.V.S., prior to his transfer to the service of the Ministry of Agriculture and Fisheries:—

MATTERS OF GENERAL INTEREST.

It will be appreciated that the subject matter of this report represents a heavy programme of work, in addition

to the duties (not included here) under the requirements of the Diseases of Animals Acts and Orders.

The decision of the Milk Marketing Board to pay a bonus of twopence per gallon for all "Certified" and "Tuberculin Tested" milk sold through them has greatly stimulated the clearing of herds from tuberculosis.

The improved methods of milk production mentioned in previous reports have been employed by an increasing number of owners, but a good deal remains to be tackled, and much time could be profitably spent in visiting farms during milking times.

Possibly due to minor labour troubles and the fear that these might become more acute, there has been a steady increase in the installation of milking machines. From a public health point of view this is an advantage, as modern machines, when intelligently handled and properly sterilised, are very efficient, and furthermore lessen the risk of contamination from a human source.

The conditions of transport during last summer, mentioned in my last year's report, were considerably improved in that milk was lifted morning and night during the warmer months.

As stated in previous reports, there again arises the question of the need for a definite official standard of cleanliness and Butter Fat Content for non-graded milk, unless "Standard" milk is to be recognised as the lowest grade of milk in the Liquid Market. This would also eliminate the arbitrary standard of Butter Fat Content fixed by the Milk Marketing Board, and would ensure that the public were reaping the benefit of the higher Butter Fat Content. At present it is doubtful if they do.

For a good number of years now the Veterinary Staff has advised on and supervised all construction and reconstruction of dairy premises. Much practical knowledge concerning premises has been gained from experience and has been made available to all who wished to undertake such work. It is gratifying to report that both owners and employees have expressed appreciation of the benefits

of such service, and have taken advantage of this service to the fullest. It is of paramount importance to the health and comfort of the animals that they be housed in properly constructed buildings, which are, moreover, almost essential for the production of clean milk.

TUBERCULOSIS (ATTESTED HERDS) SCHEME (SCOTLAND), 1936.

This Scheme, introduced in 1935, amended in 1936, is making good progress in this County, there being 54 attested herds, the majority having been first licensed under the Milk (Special Designations) Order (Scotland). A steady flow of applications for licences to produce "tuberculin tested" milk is expected. These herds will ultimately become "attested" herds under the Scheme.

SELF-CONTAINED HERDS.

The conversion of flying herds into self-contained herds continues with beneficial results, there now being 285, and this number is quickly increasing.

No administrative difficulties under the Milk and Dairies Acts were encountered during the year.

REGISTERED PREMISES, CLASSIFICATION AND NUMBER OF COWS.

	Class 1	Class 2	Class 4	Cows.	Class 3	Cows.	Retail	Total Pre- mises	Total Cows.
<i>County.</i>									
Non-Graded	311	259	20	14309	420	1880	8	1018	16189
Graded ...	86	...	...	3356	...	...	...	86	3356
<i>Burghs</i>									
Non-Graded	1	4	...	68	1	3	5	11	71
Total ...	398	263	20	17733	421	1883	13	1115	19616

Premises in Class 1 comply with the County Bye-laws in every respect.

Premises in Class 2 fall short of the requirements in some respects.

Premises in Class 3 are registered premises where milk is sold in small quantities and butter made.

Premises in Class 4 are registered premises which fall short of the requirements to a greater degree than those in Class 2.

Eighteen new premises were registered during the year and placed in Class 1, and after reconstruction 36 others were raised from a lower class to Class 1. On many other premises minor recommended improvements have been carried out.

58·4 per cent. of registered premises where milk is produced and sold, wholesale or retail, now comply with the dairy bye-laws, as compared with last year's percentage of 53. One can reasonably expect that owing to the present rapid growth of the number of premises licensed to produce tuberculin tested milk under the Milk (Special Designations) Order (Scotland), this percentage will increase more quickly than hitherto. A large number of Class 2 premises now require very little improvement to bring them up to the standard.

There are 1029 fewer dairy cows this year. This drop in numbers is partly due to the fact that a large number of farmers are having their herds tuberculin tested, disposing of reactors, and therefore for the time being having fewer dairy cows.

INSPECTION OF HERDS AND PREMISES.

Routine visits of inspection, etc.	...	...	...	1198
Visits re plans, reconstruction and improvement of premises	...	...	...	166
Visits under Milk (Special Designations) Order (Scotland)	...	...	...	715
Total	...	...	...	2079

The requirements of the Act were fulfilled in respect of annual examinations of cattle and inspection of premises, methods, etc., and, in addition, the greater number of the herds were examined twice, some more frequently if occasion demanded. Animals in Class 3 premises were examined only when one of the staff was visiting on other duties or was in the neighbourhood. As many visits of inspection as possible were made at milking times—that is, in the morning from 6 a.m. onwards, and again in the evenings, depending on the time of year. More frequent visits to dairy herds, and also regular inspection of Class 3 herds, would doubtless show results.

As compared with last year, 88 fewer routine visits of inspection were made, the reason being that work was increased in other spheres, as that under the Milk (Special Designations) Order (Scotland).

CONDITIONS AND CLEANLINESS OF CATTLE.

The comparatively high standard of the condition and cleanliness of cows has been maintained during the year. Most of the dairy farmers attempt to keep up a fairly regular supply of milk throughout the year, and this means artificial feeding during winter months.

As stated in my previous reports, again the increased number of properly constructed and reconstructed premises is conducive to a cleaner, healthier state of the cows. Correct standings and wide grips make it so much easier to keep cows clean, that many tenant-farmers are themselves carrying out alterations in this direction, although their premises already comply with the dairy bye-laws.

(a) *Nature of Fodder and Diet as affecting Quality of Milk.*

In practically every case this year's hay crop was secured in excellent condition. This assisted greatly in the upkeep of the dairy cows during the winter months.

<i>(b) Diseases found on Clinical Examination.</i>						No. of cases.
Tuberculosis ...	...	...	...	...	...	see Table
Mastitis ...	...	...	...	...	...	235
Indurated Udders, not Tuberculosis	...	...	...	...	...	24
Teat Eruptions ...	...	...	...	...	...	49
Atrophy (Complete or Partial)	...	...	...	...	...	669
Metritis or Retained Placenta	...	...	...	...	...	36
Acetonæmia ...	...	...	...	...	...	12
Contagious Abortion	...	...	...	...	...	103
Other Diseases	...	...	...	...	...	5

In the course of Routine Herd Examinations during the year the above diseases were detected. When it was considered necessary to prevent the contamination of the milk, or spread of disease, steps were taken to isolate the animals as far as possible.

The most common disease met with likely to contaminate milk was Streptococcal Mastitis. 235 cows were certified as being affected and their milk prohibited from being put into the supply. To a certain extent the integrity of the farmer has to be accepted, but we find a few rather anxious to keep up the supply. It is to be hoped this is due to ignorance, and that as knowledge spreads it will be easier to get a purer milk supply.

There was a decrease of 20 in the number of cases detected of Eruption of the Teats, but none of these was considered a case of cow pox.

One hundred and fourteen more cases of atrophy of one or more quarters of the udder were disclosed. Most cases of Atrophy are the result of an attack of Mastitis. With more regular clinical examinations of herds, more control could be exercised on this disease, which can, to a great extent, be controlled.

Nineteen more cases were found this year with Retained Placenta. There is nothing so revolting and evil-smelling as an animal standing in a dairy byre suffering from

Retention of the Placenta, and it is only to be expected that milk from such a byre will be tainted.

Contagious Abortion.—At first sight it would appear from the table, which shows an increase of 35 cases of contagious abortion in herds, that this disease was on the increase. It might, however, be the case that farmers are becoming less afraid to admit that their herds are affected with abortion. I still feel that there are more cases of contagious abortion than are recorded here. The steady increase in the number of Tuberculin Tested herds, with the required isolation, should go a long way towards diminishing the disease.

Undulant Fever in Man.—One case of Undulant Fever in Man was reported during the year. The patient was a young dairyman working in a herd which was affected with contagious abortion.

Isolation of Diseased Cows and Disposal of Milk.—When it was considered necessary, affected cows were isolated as far as practicable. The milk from diseased animals was either boiled and fed to calves or pigs, or mixed with disinfectant and disposed of.

BOVINE TUBERCULOSIS.

In my last year's report I stated that a large number of farmers were tuberculin testing their herds. During the year under review this number has increased. Every opportunity has been taken to discuss with the farmers the question of clearing up herds, and many farmers have had their herds tuberculin tested immediately after such discussion. The tuberculin testing is showing varied results. In most of the self-contained herds the percentage of reactors among young stock is small, varying from 0-5 per cent., doubtless due partly to dangerous animals having been detected in the course of dairy herd inspection and slaughtered under the Tuberculosis Order.

In a few herds the percentage is well over this, and one would infer that the presence of tubercle bacilli in the milk fed to young calves would in some cases be responsible.

The knowledge or the fear that milk from animals which have passed the tuberculin test will, sooner or later, be the only milk allowed on the Liquid Market is not without its effect in stimulating dairy farmers to free their herds from tuberculosis.

Difficulties militating against the successful marketing of "Certified" and "Tuberculin Tested" Milk.—See under Milk (Special Designations) Order (Scotland), 1936.

Number of cows found tuberculous on clinical examination of the herds :—

EXTRACT FROM RETURNS UNDER TUBERCULOSIS ORDER OF 1925.
REPORTS MADE ON ANIMALS ON REGISTERED PREMISES.

	Premises producing Milk.	Premises producing Butter, etc.	Total.
Cases reported and examined ...	701	4	705
Cases confirmed and slaughtered ...	135	1	136
Cases found at "Post-Mortem" to be :—			
(a) Advanced Tuberculosis ...	67	...	67
(b) Not Advanced Tuberculosis ...	68	1	69
Cases confirmed and slaughtered found on Herd Inspection by County Veterinary Inspectors	104	...	104
Tuberculosis of Udder ... ..	...	...	9
Giving Tuberculous Milk ... ..	...	...	2
Tuberculous Emaciation ... ..	...	...	14
Chronic Cough and showing definite clinical signs of Tuberculosis	...	...	111
Not affected ... ..	...	...	...
			136

The table above shows the number of cases dealt with during the year under the Tuberculosis Order, 1925, and classification in accordance with that Order of the different forms of the disease. The total number of

animals slaughtered shows a reduction of 8 as compared with last year. The total number dealt with is an increase of 112. 16 more animals were found on clinical herd inspection by County Veterinary Inspectors to be amenable to the Order. These figures will vary a little from year to year, but it would seem that it is becoming more difficult to detect the affected animal, since a larger number of animals is found on clinical examination of herds and fewer reported.

Steps taken to secure a tubercle-free milk supply.—The advice and explanations given to farmers in past years were continued ; such discussions with individual farmers are most valuable, as the conditions and circumstances in individual herds require individual consideration ; and the result is shown in the number of tuberculin tested herds in the County and the number of farmers who are having their herds tested. 216 farmers not licensed under the Milk (Special Designations) Order (Scotland) submitted their herds privately to the tuberculin test during 1937. In a number of cases the results are very encouraging, and in others they are disappointing, but in such cases the farmers are advised to persevere, and in the majority of cases this advice is being carried out with beneficial results.

LABORATORY EXAMINATION.

(i) Bacteriological Examination of Milk, etc.

Acetone		(a) MILK.				(b) DISCHARGES.		TOTAL.				
		Tuberculosis.		Pathogenic Organisms not Tuberculous.	Bacterial Count and Bacillus Coli.		Sputa.					
									Micro.	Bio.		
+	—	+	—	+	—	Gr.	N.-Gr.	+	—			
...	3	5	279	10	195	113	169	See under M. (S.D.), O.(S),	136	49	305	354

The foregoing table shows the number and results of samples of milk and discharges collected for examination in the County Bacteriological Laboratory. For those taken under the Milk (Special Designations) Order (Scotland), see under that Order.

Forty-one more samples of milk were collected this year compared with last year.

The 284 samples examined microscopically were from individual cows. The 5 animals responsible for the positive samples were slaughtered under the Tuberculosis Order, and on post-mortem examination 4 were advanced and 1 not advanced tuberculosis.

As regards the 205 biological tests, 109 were obtained by grouping the bulk samples of 103 farms: 8 proved positive, involving 8 different farms. 4 of the 8 animals responsible were detected on routine inspection by clinical examination and slaughtered at the time the samples were taken, but as the udders appeared normal, bulk samples of the milk from the herds containing the four cows were collected. Further examination of those herds failed to find affected cows, and a further sample from each herd proved negative. The other 4 animals excreting tubercle bacilli in the milk were found and slaughtered. The remaining 96 tests were obtained by grouping 135 samples from the more suspicious individual cows which were negative microscopically, 2 of which proved positive.

The animals responsible for the 49 positive sputa were slaughtered. 17 were advanced and 32 were not advanced.

Bacterial Count and Bacillus Coli.

Non-graded milk samples up to T.T. standard ...	99
Non-graded milk samples under T.T. standard ...	37

Of the 136 samples tested, 99 or 72 per cent. conformed to the standard laid down for tuberculin tested milk. Practically all the above samples of milk tested for Bacterial Count and presence of *Bacillus Coli* were collected during the summer months and when complaints were received regarding supplies.

(ii) Chemical.

Butter Fat Content.

Non-graded milks 3·5 per cent. and over...	...	48
Non-graded milks under 3·5 per cent.	... ..	8
		—
		56
		—

Acidity as Lactic Acid.

·18 per cent. and under	... ..	3
		—

The above 59 samples were taken when complaints were received regarding supplies.

Tubercle Bacilli in Milk.

During 1937 no reports were received from other authorities of tubercle bacilli having been found in milk which was from this County.

Total number of cows found tuberculous after tuberculin test.

No tuberculin test was carried out under Section 22 of the Act. It was not found necessary to carry out tests under the Tuberculosis Order, 1925.

Notes of Samples taken for Examination under Section 21 of the Milk and Dairies (Scotland) Act, 1914.

It was not found necessary to take samples under Section 21 of the Act.

Sections 13 and 14 of the Milk and Dairies (Scotland) Act, 1914, are being reasonably well complied with, although a number of farmers are still slow to report suspected cases. Practically all cases of diseased animals reported in Table III. of this report were found when clinical examinations of the herds were being carried out.

Sections 4 to 14 of the Milk and Dairies (Scotland) Act, 1934, have been generally complied with. It has been necessary to draw the attention of several producers to irregularities, among those being the non-sealing of milk churns before handing them over to a common carrier.

MILK (SPECIAL DESIGNATIONS) ORDER (SCOTLAND), 1936.

As stated in my report for 1936, a number of farmers who are testing their herds will have difficulty in obtaining a T.T. licence because of the premises, as no licence under the Order is granted unless the premises comply with the dairy bye-laws. Contrary to expectation, however, the premises are being brought up to the standard, and the number is not so great as was anticipated.

	No. of Dairy Cows.	No. of Young Stock.	No. of Gallons Milk produced in 1937.	No. of Gallons fed to calves in 1937.
Holders of licences for the production of—				
(a) <i>Certified Milk.</i>				
Wm. Thomson, Dalpeddar, Sanquhar ...	36	53	22,632	2,400
(b) <i>Tuberculin Tested Milk.</i>				
D. Wilson, Auchenhessnane, Penpont ...	34	30	26,666	660
A. Caldwell, Auchentaggart, Sanquhar ...	30	38	25,681	1,200
J. Kirkpatrick, Auchenhainzie, Penpont ...	62	64	51,500	2,500
C. Gibb, Auchenerieff, Dumfries ...	26	27	21,931	3,234
T. W. Kennedy, Auldgrith Farm, Closeburn	18	24	43,069	2,009
J. Muir, Ballaggan, Thornhill ...	34	46	15,006	1,302
Mrs Nicholson, Banks, Tundergarth ...	25	23	18,784	867
Messrs Kirkpatrick, Barr, Sanquhar ...	96	109	74,880	2,400
Messrs White, Balstack, Lockerbie ...	34	36	26,094	1,380
Mrs Keswick, Bellfield, Holywood ...	20	26	12,000	1,300
Carry forward ...	379	423	325,611	16,852

			No. of Dairy Cows.	No. of Young Stock.	No. of Gallons Milk produced in 1937.	No. of Gallons fed to calves in 1937.
Brought forward	...	...	379	423	325,611	16,852
Mrs Young, Beuchan, Penpont	...	...	30	23	14,474	800
R. Graham, Blackford, Lockerbie	...	...	30	31	18,000	200
A. Templeton, Blackpark, Holywood	...	...	40	49	21,547	2,555
G. E. Aitken, Blacketlees, Annan	...	...	17	26	15,937	883
A. T. Mundell, Braehead, Collin (since June)	...	...	28	27	7,710	1,000
J. Cochrane, Byreholm, Penpont	...	...	41	44	27,550	3,500
J. Woodburn, Castlemilktown, Lockerbie	...	...	62	68	41,454	2,800
A. R. Semple, Charlesfield, Annan	...	...	24	10	16,000	300
H. Hamilton, Cleuchhead, Thornhill	...	...	29	46	20,031	450
R. Reid, Cogries, Beattock	...	...	46	47	28,802	1,460
J. Y. Lethardy, Conrick, Sanquhar	...	...	26	31	17,237	1,970
A. Murray, Conheath, Caerlaverock	...	...	49	58	36,500	3,000
T. Symington, Connelbush, Sanquhar	...	...	38	47	31,855	1,500
Mrs Spence, Cowdens, Lockerbie	...	...	51	47	34,790	3,285
The Directors, C.R.I. Farm, Dumfries	...	...	119	120	89,000	8,500
A. Jackson, Cushethill, Eaglesfield	...	...	19	36	9,345	150
J. Mackie, Dalfibble, Parkgate	...	...	85	92	64,207	4,050
M. Jamieson, Daltonhook, Lockerbie	...	...	50	42	20,000	1,825
Mrs Crawley, Denbie, Dalton	...	...	7	7	4,021	172
G. Hendrie, Drum, Thornhill	...	...	55	42	37,148	4,590
D. G. Walker, Drumbuie, Sanquhar	...	...	38	49	25,765	1,600
W. Brown, Drumeock, Thornhill	...	...	54	66	32,512	3,650
Messrs Weir, Drumcuilton, Thornhill	...	...	54	63	28,510	2,000
J. Maxwell, Gall, Boreland	...	...	52	55	28,290	1,500
J. Mackie, Garnerigg, Kirkmichael	...	...	50	41	35,976	1,800
J. Marshall, Green, Locharbriggs	...	...	28	35	16,034	365
Messrs McKillop, Gibsons, Lockerbie	...	...	42	43	25,915	1,500
Messrs Halliday, Gilliesbierigg, Lockerbie	...	...	42	54	31,538	1,130
A. Glendinning, Gillenbie, Lockerbie	...	...	48	47	27,348	2,500
J. S. Laidlaw, Glengar, Penpont	...	...	34	43	16,730	1,232
Mrs Wallace, Goosehill, Sanquhar	...	...	22	24	19,760	700
J. G. S. Stewart, Halldykes, Lockerbie	...	...	52	62	35,473	830
J. Shedden, Hallhills, Boreland	...	...	38	69	28,555	1,300
Messrs Wyllie, Hannah, Cummertrees	...	...	77	61	52,565	2,340
J. Davidson, Hayfield, Kirkpatrick-Fleming	...	...	42	52	33,077	1,460
R. Nairn, Hazliebrae, Lochmaben	...	...	61	60	35,155	...
A. Hunter, Holehouse, Thornhill	...	...	36	31	18,687	300
M. Sloan, Hunterhouse, Lochmaben	...	...	31	50	22,787	1,519
J. McKerrow, Innerfield, Lochmaben	...	...	21	23	10,270	1,260
T. Wallace, Ingleston, Durisdeer	...	...	23	26	17,205	560
Mrs Lamberton, Kirkeudbright, Moniaive	...	...	26	16	12,853	1,560
C. Gibb, Kirkhill, Dalton	...	...	26	65	20,000	300
M. Waddell, Kirkland, Lockerbie	...	...	45	74	33,747	6,000
Mrs Dickie, Knockenjig, Sanquhar	...	...	40	37	29,757	2,000
N. McMillan, Knowe, Kirkconnel	...	...	44	61	35,127	1,250
J. Burgess, Lochpark, Hightae	...	...	25	24	19,971	730
A. Davidson, Luce Mains, Ecclefechan	...	...	30	45	28,795	800
J. Johnstone, Millantae, Lockerbie	42	41	30,858	4,380

Carry forward	2,248	2,533	1,635,687	105,309
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			No. of Dairy Cows.	No. of Young Stock.	No. of Gallons Milk produced in 1937.	No. of Gallons fed to calves in 1937.
Brought forward	...	...	2,248	2,533	1,635,687	105,309
G. Spence, Mosshead, Lockerbie	...	...	36	48	26,540	100
R. Daly, Muirfield, Lockerbie	...	...	20	10	14,200	300
Messrs Howie & Sons, Muirside, Dumfries	...	...	75	140	60,668	4,000
J. Stevenson, Muirhill, Durisdeer	...	...	34	38	19,354	900
J. Harvey, Nether Keir, Auldgirith	...	...	33	35	24,500	1,200
J. Maxwell, Nethier Hutton, Boreland	...	...	55	16	29,320	1,000
Messrs Connel, Newton, Kirkpatrick-Fleming	...	...	34	26	18,653	1,460
J. Shanks, Nutholm, Lockerbie	...	...	36	45	29,616	2,200
Messrs Weir, Over Garrel, Lockerbie	...	...	34	34	22,212	850
A. Paterson, Paddockhole, Lockerbie	...	...	34	32	2,500	1,280
Messrs Young, Redhills, Torthorwald	...	...	54	94	41,045	4,500
J. Mackie, Relief, Ecclefechan	...	...	80	43	45,000	2,000
J. Mackie, Broadlea, Ecclefechan	...	...	66	48	40,150	1,825
J. Jamieson, Roundbush, Annan	...	...	40	48	32,490	920
R. Dalziel, Rue, Auldgirith	...	...	40	52	22,453	3,500
R. Miller, Shawsholm, Closeburn	...	...	69	70	51,060	3,500
R. Wilson, South Mains, Sanquhar	...	...	25	42	19,000	600
J. F. Irving, Springfield, Gretna	...	...	56	73	20,400	360
Wm. M'Kenzie, No. 2 Stonehouse, Gretna	...	...	9	5	6,000	200
Wm. M'Kay, Swordwellrigg, Annan	...	...	27	24	13,900	950
J. Brown, Templand Mains, Closeburn	...	...	34	36	19,617	500
M. Gass, Townhead, Mouswald	...	...	42	35	24,400	2,700
A. E. Yates, Upper Locharwoods, Ruthwell	...	...	28	32	11,000	2,500
D. D. Wyllie, No. 4 Woodhall, Annan	...	...	16	14	9,080	400
J. Young, Mouswald Grange, Mouswald	...	...	58	70	41,000	4,000
J. Ballantyne, Nether Murthat, Beattock	21	21	1,744	3,000

Total	3340	3817	1,916,684	125,763
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(c) *Standard Milk.*

A. H. L. Walker, Roger Moor, Moffat	...	16	20	9,490	1,456		
Total	16	20	9,490	1,456

Dairies known to have tubercle-free herds but not yet licensed under the Order.

Messrs Gibsons, Archwood, Johnstone	...	...	40	44	38,800	375
J. A. Cron, Buttknowe, Kirkeconnel	...	...	31	28	16,476	1,204
Wm. Hendrie, Castlehill, Durisdeer	...	...	24	60	9,780	...
M. Cochrane, Catlins, Lockerbie	...	...	35	40	20,062	1,200
Messrs Lammie, Chapel, Moffat	...	...	35	42	24,498	2,860
Messrs Young, East Roucan, Torthorwald	...	...	22	...	18,456	...
D. Halliday, Goodhope, Johnstone	...	...	44	26	20,450	1,564
A. Kennedy, Hapland, Durisdeer	...	...	16	21	6,721	450
Messrs Lang, Upper Murthat, Beattock	...	...	22	43	12,043	2,540
G. T. Carlyle, Whitecastles Dairy, Lockerbie	36	...	18,361	...

Total	305	304	185,647	10,693
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Grand Total	3661	4045	2,111,821	137,912
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NUMBERS OF VISITS, SAMPLES, AND TESTS.

Class of Licence. Producers.						Milk Samples Examined.		Tuberculin Tests.						
Certified.	Tuberculin Tested.	Standard.	Pasteur- ised.	Retailers	Visits.	Bacterio- logical.	Chemical.	Routine Tub. Tests under M. (S.D.) O (S.).	Interim Tub. Tests.	Failed.	Passed.	Tub. Tests under Attested Herds Scheme.	Failed.	Passed.
1	84	1	1	9	715	331	335	3165	23	30	3158	4745	11	4734

Bacteriological.

Graded samples up to Certified standard	...	173
Graded samples up to Tuberculin tested standard	... ..	46
Graded samples under Tuberculin tested standard	... ..	65
	—	284
Proposed graded samples up to Certified standard	... ..	25
Proposed graded samples up to Tuberculin tested standard	... ..	5
Proposed graded samples under Tuberculin tested standard	... ..	17
	—	47
Total	... ..	331

Chemical : Butter Fat Content.

Conformed to Tuberculin tested standard (3·5%)	301
Did not conform to Tuberculin tested standard	34
Total	335

At the end of 1937 the holders of licences under this Order comprised 1 Certified, 84 Tuberculin tested, 1 Pasteurised, and 1 Standard milk.

Thirty-seven additional licences under the above Order were granted during the year. Ten other herds are known to be free from tuberculosis. In addition, during the year 216 farmers have been submitting their herds to the Tuberculin test.

Two hundred and nineteen more visits had to be made to graded herds than in 1936.

All the official Tuberculin testing necessary under the Order, other than that done by the Veterinary Officers of the Department of Agriculture under the Attested Herds Scheme, was carried out by the County Veterinary Staff, the tests for this year being 2444 more than in 1935. The results were as follows :—

No. of Herds.	No. of Reactors.
43	Nil.
2	1
2	2
1	3
1	4
1	5
1	6
1	7
1	10
3	11
1	17

As already stated, a large number of herds are gradually being cleaned up, and the number of herds licensed under this Order is steadily increasing. 54 herds licensed to produce Tuberculin tested milk are also attested under the Tuberculosis (Attested Herds) Scheme (Scotland), 1936. 10 herds are Attested and not licensed, the reason being that the premises are not up to the standard. On most of these farms the premises are being brought up to the standard with a view to obtaining a tuberculin tested licence.

*Difficulties militating against the successful marketing of
Certified or Tuberculin Tested Milk.*

The only difficulties arising here are the high price charged to the consumer and the lack of knowledge on the part of the general public with regard to these grades of milk.

U. PUBLIC HEALTH MEAT REGULATIONS.

The following slaughter-houses are under the supervision of the County Veterinary Staff:—

County—Thornhill	...	...	One Public Abattoir.
Thornhill	...	...	One Private Slaughter-house for Pigs at Bacon Factory.
Kirkeconnel	...	...	One Private Slaughter-house.
Templand	...	...	One Private Slaughter-house.
Kirkpatrick-Fleming	...	...	One Private Slaughter-house.
Racks	...	...	One Private Slaughter-house for Sheep.
Dornock	...	...	One Private Slaughter-house for Sheep.
Burghs—Sanquhar	...	...	One Public Slaughter-house.
Lochmaben	...	...	One Private Slaughter-house.
Lockerbie	...	...	One Public Slaughter-house.

ANIMALS SLAUGHTERED AT THE ABOVE SLAUGHTER-HOUSES DURING THE YEAR 1937.

			Cattle.	Sheep.	Calves.	Pigs.
Thornhill Abattoir	...	...	542	1,099	607	84
Thornhill Bacon Factory	...	...	...	...	...	25,000
Kirkeconnel	...	...	139	328	131	112
Templand	...	...	424	886	396	976
Kirkpatrick-Fleming	...	...	104	106	12	4
Racks	...	...	...	43,347	...	...
Dornock	...	...	...	58,629	94	...
Sanquhar	...	...	339	777	2	72
Lochmaben	...	...	588	2,868	124	64
Lockerbie	...	...	611	44,762	1,403	189

MEAT INSPECTION BY COUNTY VETERINARY INSPECTORS.

Table showing weight of Carcases and Offal condemned in the different classes of animals slaughtered in the above slaughter-houses during 1937.

Bovines except Calves.										Sheep.						Calves.				Pigs.								
Carcasses.	Quarters.	Meat—Lbs.	Heads.	Lungs.	Livers.	Other Offal.	Weight. Lbs.		Carcasses.	Quarters.	Mutton—Lbs.	Livers.	Other Offal.	Weight Lbs.		Carcasses.	Plucks.	Carcase	Offal	Carcasses.	Pork—Lbs.	Heads.	Livers.	Other Offal.	Weight. Lbs.			
							Carcase.	Offal.						Carcase.	Offal										Carcase.	Offal		
46370	11	89	111	437	354	16909	10571	2537	14	323	218	1101	1355	40	280	2151	322	110	1276	2161	2313	2819	32414	13273			Carcase.	Offal.

TABLE SHOWING AMOUNT OF CARCASE AND OFFAL CONDEMNED AT SAME
SLAUGHTER-HOUSES AND CAUSES OF CONDEMNATION.

Disease.	Bovines.		Sheep.		Calves.		Pigs.	
	Car- case.	Offal.	Car- case.	Offal.	Car- case.	Offal.	Car- case.	Offal.
Tuberculosis ...	12640	6079	...	...	...	...	25990	4216
Cirrhosis ...	...	1886	...	2	...	...	...	1179
Adhesions ...	...	15	...	...	...	...	...	...
Angioma ...	...	168	...	...	...	...	...	...
Degeneration ...	...	20	...	...	...	...	...	69
Abscesses ...	156	204	32	9	...	...	1133	225
Distomatosis ...	20	933	...	1062	...	...	...	...
Mastitis ...	1732	614	...	...	...	...	...	...
Injury and Bruising	335	26	24	11	...	...	901	45
Actinomycosis ...	...	60	...	...	...	...	...	...
Pentes ...	...	60	...	...	...	...	...	...
Parasitic ...	...	20	...	3	...	...	...	764
Melanosis ...	156	28	...	...	...	...	...	...
Fevered ...	530	110	...	...	160	6	...	...
Fluid ...	...	4	...	...	...	...	...	...
Putrefaction ...	560	84	...	...	...	...	600	50
Bruising ...	370	80	...	...	...	...	...	...
Arthritis ...	80	...	...	...	...	...	16	6
Pleurisy ...	20	100	152	41	38	10	94	1358
Emaciation ...	310	80	303	92	90	16	254	30
Imperfect Bleeding	...	...	590	135	504	69	...	...
Scour ...	...	...	...	...	128	22	...	...
Immaturity ...	...	...	...	...	339	54	72	10
Pneumonia ...	...	...	...	...	262	46	150	508
Navel Ill ...	...	...	...	...	362	55	...	...
Pyæmia ...	...	...	...	...	130	18	...	...
Peritonitis ...	...	...	...	...	48	8	292	36
Jaundice ...	...	...	...	...	40	8	...	...
Gastritis ...	...	...	...	...	50	10	120	30
Pericarditis and Pleurisy ...	...	...	...	...	...	...	...	2130
Pericarditis ...	...	...	...	...	...	...	...	1412
Fibrosis ...	...	...	...	...	...	...	...	762
Erysipelas ...	...	...	...	...	...	...	85	9
Septic Joints ...	...	...	...	...	...	...	154	13
Cystic ...	...	...	...	...	...	...	...	57
Contamination ...	...	...	...	...	...	...	4	...
Petechial ...	...	...	...	...	...	...	...	4
Swine Fever ...	...	...	...	...	...	...	2050	280
Ulceration ...	...	...	...	...	...	...	499	70
Rupture Flank ...	...	...	...	...	...	...	...	10
Total in lbs. ...	16909	10571	1101	1355	2151	322	32414	13273

There is need for a more uniform system of meat inspection throughout the County.

Six hundred and forty visits were paid to slaughter-houses for meat inspection and general supervision during the year. In most of the slaughter-houses the business is conducted in a satisfactory manner, but in a few much remains to be desired. At Thornhill public abattoir, bacon factory, and at Lockerbie public slaughter-house the work is being carried out thoroughly and the work of meat detention has been all that could be desired. As pointed out in previous reports, more concentration of slaughter at these centres might be considered. Failing that, at slaughter-houses where it is impossible to have permanent detention officers, meat inspection could be greatly facilitated by having limitation of days and hours for slaughter. No inconvenience of any significance would be caused to the trade.

I deeply regret to record herein the death of Mr Adam Gibb, M.R.C.V.S., one of the Junior County Veterinary Officers, who died suddenly in December of this year. His excellent services I desire to acknowledge with gratitude. My thanks are due also to Mr J. A. M'Kinnon, M.R.C.V.S., B.Sc., D.V.S.M., Junior County Veterinary Officer; to the Clerical Staff; to the Staffs of the Bacteriological and Chemical Laboratories; and to Mr Sampson, Regional Officer of the Scottish Milk Marketing Board, for their unfailing help and loyal co-operation during the year.

I am, Gentlemen,

Your obedient Servant,

GEO. A. SANGSTER,
County Veterinary Officer.

Report upon Public Assistance Work for Year 1937.

During the year ended 31st December, 1937, the number of persons from whom applications for public assistance were received showed a decrease of 152 from the previous year, and the number of cases admitted by the committee to the Roll of Poor was 151 less than in 1936. There were, however, 11 persons more in receipt of relief at 31st December, 1937, than there were at the corresponding date in 1936.

A reduction of 51 in the numbers of Destitute Able-bodied Unemployed is shown. The ordinary poor (out-door) have increased by 68 and the indoor poor by 5. The number of boarded-out children has been reduced by 15, while the number of lunatic poor has been increased by 4. The primary causes of the increase in the ordinary poor figures from 499 at 31st December, 1936, to 567 at 31st December, 1937, are the effects of new legislation, requiring that parts of certain forms of income must be disregarded, and increased scales of relief whereby persons are admitted to the roll who formerly would have been considered ineligible.

The transfer of the Destitute Able-bodied Unemployed, who came within the scope of the Unemployment Assistance Act, to the Unemployment Assistance Board took place on 1st April, 1937.

The following tables contain details of the number and manner of disposal of applications for public assistance during 1937, and of the number of poor chargeable to the County at the end of the year :

APPLICATIONS FOR RELIEF.

Number of Applications for Public Assistance.

District No.	No. of Applications	Withdrawn by Applicant.	Refused by Committee	Relief offered not accepted.	Granted Relief.			
					Out-door.	In-door.	Institutional Lunacy Cases, etc.	Total Relieved.
1	128	1	3	2	101	17	4	122
2	76	3	4	...	32	29	8	69
3	175	1	10	...	155	5	4	164
4	99	2	7	2	74	13	1	88
5	77	...	6	4	58	3	6	68
6	56	1	4	1	41	7	2	49
7	18	...	...	...	12	1	5	18
8	46	...	4	1	29	7	5	41
...	4	...	...	...	...	3	1	4
Total	679	8	38	10	502	85	36	623
Total for year 1936	831	10	31	16	678	75	21	774

NUMBER OF REGISTERED POOR CHARGEABLE TO COUNTY.

Classification.	At 31st December, 1937.			At 31st December, 1936.		
	Poor Persons	Depend-ants.	Total	Poor Persons	Depend-ants.	Total.
Ordinary—Outdoor	567	454	1021	499	539	1038
Do. Indoor	66	3	69	61	...	61
Boarded-out						
Children	72	...	72	87	...	87
Lunatic and Mental						
Defective	163	...	163	159	...	159
Able-bodied						
Unemployed	37	70	107	88	198	286
Totals	905	627	1432	894	737	1631

SUSPENSE POOR.

At the end of the year 22 cases were chargeable on the roll of suspense poor. In 19 of these the settlement was still undetermined, the remainder being without any available settlement in Scotland.

LUNATIC POOR AND MENTAL DEFECTIVES.

The following are the details of numbers of this class of poor chargeable at 31st December, 1937 :—

	In Institutions.	Boarded-out.	Totals.
Lunatic Poor	133	6	139
Mental Defectives	19	5	24
Totals	152	11	163
Totals as at 31st December, 1936	148	11	159

VAGRANTS.

The number of vagrants dealt with and relieved during 1937 was 6893, as compared with 8773 in 1936, 9480 in 1935, and 10,337 in 1934.

CLAIMS FROM OTHER AUTHORITIES.

Of 229 claims received from Other Authorities, 192 were finally admitted, 15 refused, 1 withdrawn, and 21 were still under consideration at the end of the year pending investigation being made.

CLAIMS AGAINST OTHER AUTHORITIES.

Claims were made against Other Authorities in respect of 98 poor persons becoming chargeable in this County, and of that number 61 were successful, 8 refused, 1 withdrawn, and 28 remained in dispute at the end of the year.

SCALES OF RELIEF.

On the recommendation of a special sub-committee appointed to review the allowances to persons in receipt of public assistance, the Council decided (1) to grant increased allowances to married couples, (2) to increase

the allowance in respect of the first dependant child, and (3) to increase the maximum allowance in respect of rent. These increases were given effect to at the commencement of the current year.

ROWANTREE HOUSE.

The number of inmates at 31st December, 1937, was 27 males, 16 females, and 3 children.

During the year the house was provided with a new roof, and a new building was erected for the firewood industry.

The management of the house throughout the year was again most satisfactory.

SICKHOUSES.

A report on the Sickhouses in the County was prepared by the Chief Public Assistance Officer, and after consideration by the Council it was decided to close the rest-house at Lochmaben, and plans for the reconstruction of the Sickhouse at Moffat were approved. The question as to whether the rest-house at Eskdalemuir should be closed or reconstructed is still under consideration.

PROSECUTIONS.

During the year one husband was apprehended under Section 80 of the Poor Law (Scotland) Act, 1845, for neglecting to maintain his wife. He was sentenced by the Sheriff to two months' imprisonment. One case was apprehended and brought before the Sheriff for deserting her children, and sentence was deferred pending arrangements being made for their future care and maintenance.

There were no cases of fraud during the year.

REMOVALS TO ENGLAND.

Warrants for removal to England of two poor persons were obtained during the year. The removal was duly carried out in one case, but the other poor person ceased to be a charge before the removal could be carried out.

REPAYMENTS OF ALIMENT.

The amount recovered from relatives of poor persons, workmen's compensation, pensions, unemployment benefit, etc., amounted to £1257 18s 5d, as compared with £936 12s 3d in 1936.

CHILDREN AND YOUNG PERSONS ACTS.

The following table shows the number of cases dealt with in terms of the above Acts. The Local Government Officers, in their capacity of Infant Life Protection Visitors, paid 124 visits of inspection in these cases :—

CHILDREN ACTS, 1908-1932.

Dist. No.	No. of Cases. 1st Jan., 1937.	Intimations Received.	Deaths.	Removals, etc.	No. of Cases. 31st Dec., 1937.
1	2	1	...	1	2
2	4	1	...	1	4
3	6	1	...	...	7
4	10	3	...	3	10
5	7	2	...	2	7
6	2	...	...	...	2
7	...	...	...	...	...
8	2	...	...	1	1
Totals	33	8	...	8	33
Previ- ous Year	42	6	...	15	33

VACCINATION DEFAULTERS.

The number of defaulters reported by Registrars and Other Authorities was 120, as per the following table, which

indicates the manner in which they were disposed of. Orders to vaccinate were issued to the Medical Officers in 66 cases :

District No.	Successfully Vaccinated.	Certified Inausceptible	Certificates of Postponement.	Certified Not Traced.	Reported to Other Authorities.	Died before Vaccination.	Total.
1	11	...	3	1	3	2	20
2	1	...	...	1	4	...	6
3	16	...	1	1	2	...	20
4	11	...	...	1	...	...	12
5	8	1	4	...	4	1	18
6	3	1	1	...	...	...	5
7	2)	...	7	1	10	...	38
8	1	...	...	...	...	...	1
	71	2	16	5	23	3	120

APPLICATIONS FOR RELIEF FROM PAYMENT OF RATES.

The services of the staff of the Public Assistance Department were again utilised for the investigation of circumstances of persons who had applied for relief from rates. The number of cases in which reports were obtained and recommendations furnished for the guidance of the appropriate committee was 299.

CHANGES OF MEDICAL STAFF.

Dr George Ross Taylor, Temporary Poor Law Medical Officer of Cummertrees, Dalton, Mouswald, and Ruthwell, resigned during the year, and Dr J. C. Fitch was appointed to the vacancy.

INSTITUTIONAL ACCOMMODATION FOR MENTAL DEFECTIVES.

The Committee considered a circular, dated 20th May, 1937, from the General Board of Control for Scotland, drawing attention to the requirement that local authorities should provide institutional accommodation for mental defectives. Enquiry was made as to whether the Directors of the Crichton Royal Institution could arrange to make the necessary provision, but no further advance towards a solution of this admittedly difficult problem was made during the year.

OTHER SANITARY WORK.

SCAVENGING.

The scheme for improved scavenging in villages in Thornhill District remains *in statu quo*.

SMALL BURGHS.

BURGH OF ANNAN.

The following is an extract from the Annual Report by Mr Jas. I. Rodger, Sanitary Inspector for the Burgh of Annan :—

Water Supply.—The water in Annan, thanks to the foresight of our predecessors, is of an abundant supply and of good quality. The water is collected from the hillside and has a gathering area of approximately 1140 acres, from which it is directed into an impounding reservoir with a capacity of approximately 32,000,000 gallons, capable of supplying the needs of the community served for a long time during dry weather. Leading out of the reservoir is a 9" C.I. pipe which is diverted into one 7" C.I. main and one 5" C.I. main, which carry the water from the reservoir to the filtering plant situated at Land-heads. The plant here consists of two sand filters and a storage tank. Up to the present year the town was fed by a 7" C.I. main pipe, but, as previously mentioned, the Local Authority carried out several new works, which included a duplicate 7" C.I. main entering the town at the highest level. Since this pipe has been introduced an appreciable difference of pressure has been found in the town, especially in the higher districts. In connection with the new work, two 5" Glenfield & Kennedy meters were installed and a new stone meter house erected. The inlet pipes to the filter beds had ball float valves attached to them, and at the outlets of the filter beds "adjustable filter outlets" were placed. At the inlet to the clear water tank a ball float valve was attached. This system of valves, etc., regulates the level of the water entering the filter beds and clear water tank and ensures none of the water running to waste. The foregoing scheme also allowed for the linking up of "dead-ends"

wherever possible, as those ends were found to be a source of annoyance and a catchment for all silt from the mains. During the year 11 dead-ends were treated in this way. Throughout the year the filter beds were cleaned out regularly, and the mains between the source of supply and the town were seoured.

Drainage System.—The drainage system serving the town has during the year been working in a satisfactory manner. Owing to one part of the system having very little gradient, special care has to be taken to ascertain that no heavy solids are allowed to silt this portion up, and periodic inspections are made to determine this. During dry weather the gully traps in the town are examined and treated with disinfectant as a safeguard against the possibility of these being a source from which infectious disease may be contracted.

Sewage Purification and Disposal.—As stated in previous reports, the crude sewage is discharged into the River Annan and carried out to the Solway Firth. No serious complaints have been lodged against this procedure.

Housing.—Under this heading arises a problem which entails a great amount of work on the part of the Local Authorities. It is essential that the citizens be housed under conditions applicable to a standard pertaining to good public hygiene, and it is with this in view that the Local Authorities are proceeding in their various schemes. I should like to point out here the inadequacy of the various housing grants, especially in regard to tenants having only small families and the Board's reluctance to allow Local Authorities to proceed with the erection of a small number of two-apartment houses. No doubt it is in the Departments' minds that a sufficient number of two-roomed houses will be available on completion of the Local Authority's Overcrowding Housing Schemes, but I would like to point out that the majority of those houses which will be rendered vacant are not of modern design, are pro-

vided with outside w.c.'s, etc., and in my opinion not suitable for aged couples or families which, through circumstances, will never require more than a two-apartment house. I may say in Annan there are a number of such cases to be dealt with.

The following details enumerate the various particulars regarding housing throughout the Burgh :—

UNINHABITABLE HOUSES.

At the year ending 31st December, 1937, the number of houses brought before the Local Authority was 157. The proprietors of these premises were notified, and undertakings have been given that on vacation by the existing tenants the houses will not be re-let before alterations to the premises are carried out meeting with the approval of the Local Authority. Up to the end of the year, of the 157 houses certified uninhabitable 59 are presently unoccupied, 11 have been renovated, and 7 have been demolished.

HOUSING DEVELOPMENTS.

The Local Authority up to the present time have completed the erection of 56 houses composed of 16 four-apartment houses and 40 three-apartment houses, into which have been transferred 301 persons from slum dwellings.

In addition to the foregoing, a scheme of 52 houses, composed of 8 five-apartment houses, 28 four-apartment houses, and 16 three-apartment houses, is now in the course of erection, and several houses should be completed at an early date. In addition to this scheme the Local Authority have also agreed to proceed with the erection of a three-apartment house on an isolated site which is owned by the Council. With a view to the provision of further modern houses, the Local Authority are contemplating purchasing several sites presently occupied by slum clearance property, and hope to utilise these sites for building purposes.

RURAL WORKERS (SCOTLAND) ACT, 1926-1931.

Since the adoption of the Act applications numbering 31 have been received, and in 30 cases the work was proceeded with and the houses renovated to meet modern requirements.

Offensive Trades.—Throughout the Burgh there exists only one offensive trade, namely, a Skin Works. No complaints have been received regarding the work carried out, and on inspection I found that the premises are kept in a clean condition.

Slaughter-house.—The slaughter-house in Annan is owned by the Local Authority and all killing is accomplished here, and accordingly supervised by the Local Authority. The animals when slaughtered are examined, and condemned whenever necessary under the warrant of a magistrate. Last year the number of animals slaughtered was :—

Cattle	...	...	566	Pigs	...	...	...	1029
Sheep	...	...	1661	Calves	...	...	...	31

During the year the following animals or parts of animals were condemned, seized, and destroyed :—

Cattle	...	...	3	Beast Livers	...	...	50
Sheep	...	...	17	Sheep Plucks	...	...	39
Pigs ...	...	...	3	Pig Plucks	...	...	2
Calves	...	...	4				

The Veterinary Surgeon visits the slaughter-house at regular periods. The whole structure is lime-washed inside, and the woodwork painted as required. During the year several structural alterations were carried out on the buildings.

Scavenging.—The scavenging of the town is carried out by two carts, one a low loading vehicle of modern design and the other a box cart. Both vehicles are fitted with pneumatic tyres for convenience. The refuse of

the town is collected three times weekly, and the Burgh is divided into two districts which are collected on every alternate day except the main street where the shops are situated, this being collected daily. The paper from trade premises is collected on Monday and Wednesday of each week. The streets of the town are swept daily, and the cesspools receive attention at regular intervals.

The Local Authority, owing to the extension of the various housing schemes and consequently the enlargement of the collecting area, are considering the purchase of a larger collecting cart so as to curtail the number of runs to and from the disposal point. At the year ended 31st December, 1937, the amount of refuse collected was as follows :—

Loads of Household Refuse	...	2408	
Loads of Paper from Shops, etc.	...	205	
Loads of Surplus Material	...	18	
			<hr/>
		2631	<hr/>

It will be noted from the foregoing figures that there is a considerable increase in the amount of refuse collected from last year, the loads being 267 more.

Sanitary Conveniences, etc. — Owing to the housing developments a steady decrease in the number of outside water supplies and w.c. accommodation has to be noted. The Local Authority are of opinion that the foregoing mentioned conveniences shall all be installed inside each dwelling-house, and with this in view a steady progress on these lines is being carried out.

At the present time the number of dwelling-houses without inside water supplies and w.c. accommodation is as follows :—

1. Houses without water supply and sink inside—

Outside taps supplying 1 tenant	...	22
Outside taps supplying 2 tenants	...	5
Outside taps supplying 4 tenants	...	2

2. Water-closets used in common—

Outside w.c. for use of 2 tenants ...	64
Outside w.c. for use of 3 tenants ...	14
Outside w.c. for use of 4 tenants ...	5

Schools.—Within the Burgh there are three schools, and on inspection I find these to be well looked after and have always found them in a cleanly condition.

Burial Grounds.—There are three burial grounds within the Burgh, but during the year no interments have been carried out.

Workshops and Factories.—Situated within the Burgh are several factories and workshops, and on inspection I have found these to be kept in a cleanly condition. During the year I have had no occasion to issue any notices regarding their cleanliness.

BURGH OF SANQUHAR.

Water Supply.—One visit was made to the waterworks during the year. Samples of the water were taken periodically for analysis.

Sewage Disposal.—Two visits were made to the works during the year, and matters were found to be satisfactory.

Housing.—One hundred and thirteen visits under the Housing Acts were made during the year. 28 Demolition Orders and 6 Closing Orders were issued, and 2 undertakings were accepted.

Permission was granted to use two Category III. houses as stores.

Proposals in respect of 9 Category II. houses were submitted, and the owners of other 7 houses were met and

proposals discussed with them. In two cases the proposals have been dropped and nothing further has been done regarding the others, the proposals as submitted being unsatisfactory.

Thirteen tenants found to be overcrowded were rehoused during the year.

Twenty-one visits were made in respect of alterations and additions to existing buildings. Bathroom accommodation was provided in 3 houses ; larder accommodation in two houses ; two dwelling-houses were converted into a Masonic Temple ; alterations were carried out in 3 shops, and a w.c. and sink fitted in Girl Guide Hall.

Twenty Council houses were completed during the year, 10 visits being made to them.

One Category II. house was brought up to the required standard.

Slaughter-house.—One visit, accompanied by an Inspector of the Department of Agriculture, was made during the year.

Cleansing.—The coup was visited along with representative from Department of Agriculture.

Common Lodging-house.—Two visits were made during the year and a number of minor defects repaired and remedied.

Other Sanitary Work.—Visits were made in connection with 3 complaints, one of which was concerning housing and was dealt with accordingly. The other complaints were of bug infestation. The affected houses were disinfected thoroughly, and the cause for complaint appears to have been removed.

BURGH OF LOCHMABEN.

Water Supply. — As previous reports. Nothing requiring special comment arose during the year.

Sewage Disposal. — As previous reports. Nothing requiring special comment arose during the year.

Slaughter-houses. — There is one private slaughter-house within the Burgh, which is conducted in a satisfactory manner.

Sanitary Conveniences, etc. — There are 10 common water-closets, each of which serve two tenants, and there are two houses with pail privies. Ten dwelling-houses are without a water supply or sink within the house.

Housing. — The survey in terms of the Housing (Scotland) Act, 1935, was completed during the year, and of the 295 houses inspected 184 were considered Category I., 44 Category II., and 67 Category III. At the time of inspection 25 houses were found to be overcrowded, of which number 7 occurred in Category I. houses, 5 in Category II. houses, and 13 in Category III. houses.

At the end of the year 18 cases of overcrowding affecting 19 families had been relieved, 16 of which were relieved as a result of action taken by the Local Authority.

During the year Demolition Orders were made in respect of 16 houses and a Closing Order in respect of 1 house.

Two houses were reconstructed by means of grants under the Housing (Rural Workers) Acts.

BURGH OF LOCKERBIE.

The following is an extract from the Annual Report by Mr D. R. Walker, Sanitary Inspector for the Burgh of Lockerbie :—

Water Supply.—The water supply for the Burgh is derived from an upland gathering ground and collected into an impounded reservoir of $15\frac{1}{4}$ million gallons capacity, from which it is gravitated to the filter beds and storage tanks about four miles distant and in close proximity to the town.

Filtration.—In order to clarify our water so far as is practicable, two sand filter beds are employed, and during the year the contents of both filters were taken out and fresh materials put in.

Distribution.—The distribution throughout the town is a matter which calls for persistent and careful supervision—the most important part of this work being a house-to-house inspection of fittings annually. There have been no complaints of any consequence regarding the water supply throughout the year.

Sewage Disposal.—All the houses in the town are provided with water-closets, there being no privies or dry-closets.

The town is well equipped with good sewers. They have all a sufficient fall, and no flushing tanks are required to assist them in their functions. Manholes are well placed at suitable intervals with surface ventilating covers, and only on very few occasions when there has been a long dry spell have any complaints been received regarding bad smells from the manholes, which smells have always been got rid of by a flush from a nearby hydrant.

Scavenging.—The collection of the household refuse is efficiently carried out. Two horses and carts are

employed three forenoons per week in this work. The streets are swept daily and all gully traps are cleaned regularly. There is also a special collection of wastepaper from the shopping area on Friday afternoons, this wastepaper being conveyed to a site well out of the town and burned immediately.

The approximate tonnage of refuse handled during the year is as follows :—

Household Refuse	...	...	...	1245 tons.
Wastepaper	...	...	...	150 tons.
Other Sources	...	...	...	140 tons.
				<hr/>
Total	...	...	...	1535 tons.
				<hr/>

Nuisances.—The nuisances that occurred during the year were all looked into, and abated without any proceedings having to be taken. Six notices were served, all of which were complied with.

The number of water-closets serving more than one tenant, and houses without water and sinks inside the house, are as follows :—

Common water-closets serving 2 tenants	...	8
Common water-closets serving 3 tenants	...	2
Common water-closets serving 4 tenants	...	1
Houses without water and sinks inside the house		10

Slaughter-houses. — The Burgh Slaughter-houses are well situated and are inspected regularly. The inspection of meat is carried out by the County Veterinary Officer. The following are the comparative figures for the slaughtering of animals for the years 1936 and 1937 :—

		1936.	1937.	Increase.	Decrease.
Cattle	...	622	611	...	11
Calves	...	527	1,403	876	...
Sheep	...	50,056	44,762	...	5,284
Pigs	...	172	189	17	...

The bulk of the garbage is disposed of to a chemical works.

Schools.—Lockerbie Academy is the only school situated within the Burgh. The sanitary arrangements are satisfactory.

Dairies.—There are two registered dairies situated within the Burgh which are regularly inspected. They are of good construction and kept clean.

Factories and Workshops.—There are no factories, and the workshops within the Burgh number 26, all of which may be regarded as satisfactory.

Common Lodging-house.—There is one common lodging-house within the Burgh, which is kept clean and is well conducted. Although this house meets the needs of the district, the apartments are far from being of a satisfactory standard.

Burial Grounds.—There is one burial ground within the Burgh, which is now under the control of the Local Authority. During the year one interment was carried out.

Bakehouses.—There are six bakehouses situated within the Burgh, and on inspection during the year were found to be in a satisfactory condition.

Housing (Scotland) Acts, 1930 and 1935.—Housing progress in the Burgh under the above-mentioned Acts continues steadily. There was a temporary hold-up of the building programme occasioned by the sudden rise in the price of materials, but after a short time very favourable tenders for the work were obtained and the Town Council decided to proceed with the erection of 20 houses at Park Place, which scheme is now well advanced. The position at the end of the year was as follows :

Families re-housed from unfit properties ...	41
Families re-housed from overcrowded houses	10
Unfit properties still to be dealt with ...	100
Overcrowded houses still to be dealt with ...	17

The housing problem is a formidable task to deal with, but it is gratifying to see tenants from unhealthy and depressing surroundings re-housed in new houses with all modern sanitary conveniences, such as in Kintail Park.

BURGH OF MOFFAT.

The following is an excerpt from the Annual Report by Mr John Sanson, Sanitary Inspector for the Burgh of Moffat :—

Water.—The Burgh is fortunate in having an excellent supply of water, which is of good quality and ample quantity. The supply is drawn from hill pasture land, where the risk of contamination is slight. The water is collected in wells, and is then passed into an underground concrete tank, and from there direct into two trunk mains which supply the town.

The daily average consumpt for all purposes during the year has been 242,000 gallons, as compared with 236,000 gallons per day during the year ended 31st December, 1936. No complaints have been received regarding shortage of water. During the year under review the approximate daily average consumpt has been 103 gallons per head of population.

There is now only one house in the Burgh to which water has not been introduced. This house is old and becoming worn out. I do not think it would be wise to ask the owner to introduce water and fit up a sink when the general condition of the dwelling may require to be dealt with at an early date.

Housing.—The erection of sixteen new houses at the Rogermoor site was completed during the year. Those houses were built to relieve overcrowding, and I am glad to report that there is no case of overcrowding in the Burgh at present.

Housing inspections are made at regular intervals, and owners are usually found to be ready to give all the help they can by carrying out whatever repairs are found necessary.

Common W.C.'s.

Serving four tenants	...	...	...	...	...	1
Serving two tenants	...	...	...	...	...	4
Houses without water and sink inside house	...	...	...	...	...	1
Privy middens	...	...	...	...	...	nil.
Ashpits	...	...	...	...	...	nil.

The property where one w.c. serves four tenants is now being dealt with, and the owners are considering a scheme for converting the four houses into two.

Sewerage and Sewage Works.—The sewage works are of modern design and have been in operation for about ten years. The approximate dry weather flow from the works is 253,000 gallons per 24 hours, while the daily average consumpt of water for the Burgh for the past year has only been 242,000 gallons. In my opinion the efficiency of the works is being impaired by the access of subsoil water to the Burgh sewers. Great efforts have been made to remedy this matter, but up to the present they have only been partly successful. The effluent from the works is discharged into the River Annan, and in the vicinity of the outfall sewage matter can be seen on the banks and in the river bed.

Cleansing.—The cleansing is carried out by the Burgh workmen, and except in a few instances the daily removal system is in operation. The refuse is carted to a dump outside the Burgh boundary. The quantity of household refuse and street sweepings removed averages four tons

per day. A large area of marsh land is being reclaimed, and part of it is now under cultivation.

The collection of refuse throughout the town is usually completed by 11 a.m. A weekly collection of wastepaper from trade premises is made, and the paper is burned at the refuse tip. A weekly collection of tins, etc., is also made throughout the town. No effort is spared to keep the town in a clean and tidy condition, and with the ready co-operation of the townspeople highly satisfactory results are obtained.

Nuisances.—Fourteen complaints which were received during the year were given the usual prompt attention. The number of nuisances dealt with was twenty-seven, none of which were of a serious nature, and were readily attended to when brought to the notice of those responsible.

Slaughter-house.—The public slaughter-house is under the control of the Town Council. The premises are kept clean and free from objectionable odours.

Animals slaughtered during the year numbered :—

			1937.	1936.
Cattle	...	...	102	77
Sheep	...	...	481	429
Pigs	...	...	37	33

Factories and Workshops.—In the supervision of factories and workshops 126 visits of inspection were made. The premises visited were generally found to be well kept.

Schools.—The schools in the Burgh have been visited at regular intervals, and in each case it was found that a high standard of cleanliness was being maintained.

Bakehouses.—There are four bakehouses in the Burgh, all of which are kept in a clean and wholesome condition.

Dairies.—There is only one milkshop in the town where milk produced outside the Burgh is sold. This

shop has been visited several times during the year, and was found to be in a satisfactory condition.

Burial Ground.—The burial ground in the Burgh is under the control of the Town Council. It is not available for interments but is open to the public, and is kept in good order.

Common Lodging-houses.—There are no common lodging-houses in the Burgh. There is a resthouse in which vagrants are given shelter for one night. The premises are under the control of the Dumfries County Council, and are at present being enlarged.

BURGH OF LANGHOLM.

The following is an extract from the Annual Report by Mr A. A. Oliver, Sanitary Inspector for the Burgh of Langholm :—

Water Supply.—The water supply has been of satisfactory quality, and at all times during the year there has been a sufficient quantity available to adequately supply the needs of the community.

There are no meters or apparatus available to accurately gauge the actual amount of water coming into or being drawn from the storage tank : but after tests made by shutting off the water, etc., it was estimated that the average daily quantity used was equal to 60 gallons per head of population and that the minimum daily inflow was practically equal to this amount.

For the greater part of the year the storage tank was full and overflowing.

The springs and gathering ground were inspected and found in good order at dates of visit.

The work of testing, inspection, and waste prevention were carried out by the Burgh Surveyor's department regularly and efficiently.

Drainage and Sewage Purification.—The drainage and sewerage system has functioned satisfactorily, been properly maintained, and continues to meet the needs of the Burgh without causing any nuisances. The usual routine work has been regularly and properly carried out.

I inspected and tested all connections to main sewers, also all new private drainage works before these were put into use.

The sewage disposal works at Lands End have been sludged regularly, and the final effluent discharging into the River Esk has been satisfactory. The work here has been greatly improved by the new power extractor. The sludge and rough detritus are disposed of as formerly by removal to Wauchope coup, where they are properly covered with fulzie.

There have been no complaints in connection with either sewerage or sewage disposal.

Cleansing and Scavenging.—The work of street cleansing was reorganised during the year. One member of the staff has been continuously employed, and considerable time has been given to the removal of weeds. The result is a marked and very creditable improvement.

The collection of refuse is just as in former years. I again regret to have to comment on the practice of putting out of ash-bins the night previous to collection and delay in removing them from the street after they are emptied. Both of these practices are steadily becoming more pronounced. I have drawn attention to this objectionable practice in several of my previous reports, and I would again respectfully ask the householder and the Local Authority to use every means in their power to prevent it.

The refuse was disposed of by making up the river bank at the Kilngreen. The work was carried out carefully, with satisfactory results.

During the year arrangements were concluded for a new refuse coup at High Mill Bridge. The site is ideal for controlled tipping, and is likely to deal efficiently with the question for several years.

Every effort has been made to keep rats and vermin within reasonable limits by the use of traps, poison, and cyanogas.

Nuisances.—There have been no nuisances of a serious character, and in only one case was it found necessary to serve a statutory notice. In no case was it found necessary to ask the Local Authority to institute statutory proceedings.

There are no closets on the conservancy system, earth-closets, or privies within the Burgh. The number of water-closets serving more than one tenant and houses without water and sinks inside the house are as follows :—

Common water-closet serving 2 tenants	...	...	51
Common water-closet serving 3 tenants	...	...	16
Common water-closet serving 4 tenants	...	...	5
Common water-closet serving 5 tenants	...	...	1

In the following cases (included in the above) the provision of a separate water-closet was considered to be either impracticable or inexpedient :—

Common water-closet serving 2 tenants	...	...	10
Common water-closet serving 3 tenants	...	...	3
Common water-closet serving 4 tenants	...	...	1
Houses without water and sinks inside the house	...	...	8
Ash-pits serving one house only	...	...	5

Slaughter-houses.—The three private booths licensed by the Local Authority were inspected regularly and found to be in a satisfactory condition at the dates of visit.

The following carcasses, which is the total number slaughtered, were inspected :—264 oxen, 557 sheep, 18 pigs, 4 calves.

In no cases was it found necessary to detain a carcass for inspection by the Meat Inspector.

Burial Grounds.—There are no burial grounds within the Burgh.

Factories and Workshops.—Thirty-three inspections were carried out, and the premises visited were found to be in a satisfactory condition. In one case it was found necessary to serve a written notice for a breach of the Act.

Houses Let in Lodgings and Common Lodging-houses.—There are no houses let in lodgings or common lodging-houses within the Burgh.

Report for the year ended 31st December, 1937, on Proceedings taken with regard to the Inspection, Improvement, and Demolition and Closure of Dwelling-houses.

HOUSING (INSPECTION OF DISTRICT) REGULATIONS (SCOTLAND), 1928.

1. Number of dwelling-houses inspected :—

(a) During year	...	...	...	...	90
(b) Since 1st January, 1931	...	...	...	...	806
2. Number of dwelling-houses which on inspection were considered to be in any respect unfit for human habitation :—

(a) During the year	...	...	...	...	32
(b) Since 1st January, 1931	...	...	...	...	78

BURGH POLICE (SCOTLAND) ACT, 1892.

3. Number of houses in respect of which notice was given during year under Section 246 requiring provision of a sufficient water-closet nil.
4. Number of houses where requirements were complied with by owners during year nil.

5. Number of houses where works carried out by Town Council during year after failure of owners to do so nil.
6. Number of houses for which water-closets were provided during year at instance of Town Council without formal notice under Section 246 ... nil.
7. Number of houses in respect of which notice was given during year under Section 246 requiring provision of inside water supply and sink ... nil.
8. Number of houses in which requirements were complied with by owners during year nil.
9. Number of houses in which works carried out by Town Council during year after failure of owners to do so nil.
10. Number of houses in which inside water supply and sink were provided during year at instance of Town Council without formal notice under Section 246 nil.

HOUSING (SCOTLAND) ACT, 1925.

11. Number of houses of (a) one apartment, and (b) two apartments, for erection of which consent of Town Council was given during year in terms of Section one hundred and eleven :—
 - (a) nil.
 - (b) nil.

HOUSING (SCOTLAND) ACT, 1930.

12. Number of dwelling-houses in respect of which notices were served during year under Section 14 (1) nil.
13. Number of dwelling-houses rendered fit for human habitation during year following on notices under Section 14 (1) nil.
14. Number of dwelling-houses in respect of which work has been done during year by Town Council under Section 15 (1) nil.

15. Number of dwelling-houses in respect of which in terms of Section 17 a demolition order or closing order under Section 16 (3) has been substituted during year for a notice under Section 14 (1) ... nil.
16. Number of dwelling-houses in respect of which notices were served during year in terms of Section 16 (1) nil.
17. Number of dwelling-houses in respect of which, following on notice under Section 16 (1) :—
 - (a) Undertaking has been given during year that house will not be used for human habitation until it has been rendered so fit nil.
 - (b) Undertaking has been given during year that house will be rendered fit nil.
 - (c) Demolition orders have been made during year under Section 16 (3) nil.
 - (d) Closing orders have been made under Section 16 (3) and (4) nil.
18. Number of dwelling-houses rendered fit during year following on undertakings under Section 16 (2) nil.
19. Number of dwelling-houses rendered fit for human habitation during year at instance of Town Council without formal notice under Housing (Scotland) Act, 1930 nil.
20. Number of dwelling-houses in respect of which closing orders have, in terms of Section 16 (3), been determined by Town Councils during year following upon houses having been rendered fit for human habitation nil.
21. Number of houses in respect of which advances have been made during year in terms of Section 34 towards cost of repairs and amount so advanced nil.

Four of the houses unfit for human habitation became vacant during the year and were closed by the owner without statutory notices.

As previously reported, the chief defects are dampness and lack of light in attic rooms.

The detailed survey of houses for the purposes of the Housing (Scotland) Act, 1935, was completed during the year. The following are the statistics :—

No. of Rooms.				Total.	Overcrowded.	Unfit.
1	...	...	...	21	3	4
2	...	...	...	152	16	16
3	...	...	...	264	5	9
4	...	...	...	147	0	4
5	...	...	...	77	1	2
6 and over	...	...	...	121	0	1
				—	—	—
				782	25	36
				—	—	—

Number of Houses Required.

Rooms—	1	2	3	4	5	6
To abate overcrowding ...	nil.	2	14	8	nil.	1
For slum clearance ...	3	14	8	2	1	0

Fit Existing Houses :

To be rendered vacant ...	3	16	5	0	1	0
Estimated surplus ...	nil.	nil.	nil.	nil.	nil.	nil.
New houses required ...	0	0	17	10	...	1

Included in the unfit houses are 4 which have been closed, 3 occupied by old people, and 1 used only for a short period at holiday times. This leaves a total of 28 houses to be dealt with.

The Town Council have prepared a scheme and are taking prices for the erection of 1 six-apartment house, 8 four-apartment houses, and 12 three-apartment houses to deal with their housing needs.

LABORATORY REPORTS.

A. CHEMICAL LABORATORY.

The Laboratory meets the administrative requirements of the Counties of Dumfries, Kirkcudbright, and Wigtown, and the Burghs therein. Analyses and other examinations are made for the Local Authorities and for approved institutions and individuals within the area, but the bulk of the work submitted is on behalf of the County Councils. It consists principally of the examination of water and sewage; of milk, in connection with the Milk (Special Designations) Order (Scotland); and of foods and drugs taken for the enforcement of the Food and Drugs (Adulteration) Act and its associated Orders.

The remainder includes the examination of samples taken under the Fertilisers and Feeding Stuffs Act, of medicines for the several National Health Insurance Committees, and occasional problems which may call for special treatment.

ANALYSES MADE FOR THE COUNTY COUNCILS.

(i) Dumfriesshire.

One thousand and twenty-eight samples were submitted, representing 59 per cent. of the total number received in the Laboratory.

Work for the Public Health Committee has been on the lines just indicated.

WATER—POTABLE.

(a) Special Water District Supplies.

Examinations are made of the water supplied to the Special Water Districts quarterly. The Lockerbie Burgh Supply is examined half-yearly. The actual analyses are given in Appendix I.

In 4 instances (one associated with the presence of Nitrites) the amount of Free Ammonia was greater than

usual, but the samples were otherwise satisfactory and were also of excellent quality bacteriologically.

The saline residues obtained from water supplied to 6 of the Special Districts were examined for their mineral constituents. The following results were obtained :—

Source.			Winterhope.	Winterhope.	Ecclefechan (Torbockhill).	Kettleton.	Pontpont.	Bankshill.	Ecclefechan (Haregills).
Ions.			(i)	(ii)	Parts per 100,000.				
Calcium	Ca.	...	1.25	1.56	.97	.83	1.14	4.70	3.47
Magnesium	Mg.	...	.68	.80	.50	.27	.35	.56	1.24
Potassium	K.	...	.10	.10	.21	.08	.06	.06	.14
Sodium	Na.	...	.61	.66	.53	.55	.53	.61	.69
Lithium	Li.	...	—	—	+	+	+	—	+
Carbonate	CO ₃	...	3.43	4.11	2.63	1.60	1.77	7.85	7.35
Sulphate	SO ₄	...	.69	.75	.80	.71	.75	.98	1.11
Nitrate	NO ₃	...	.11	.14	.10	.03	.27	.25	.62
Chloride	Cl.	...	.60	.70	.44	.75	1.11	.79	1.10
Total Ions ...			7.47	8.82	6.18	4.82	5.98	15.80	15.72
Silica ...			.50	.39	.39	.48	.51	.52	.67
			7.97	9.21	6.57	5.30	6.49	16.32	16.39
Hardness, as CaCO ₃ —									
Temporary		...	5.7	6.8	4.4	2.7	2.9	13.1	12.2
Permanent		...	.2	.3	.1	.5	1.4	.9	1.6
Total ...			5.9	7.1	4.5	3.2	4.3	14.0	13.8

The Bankshill and Haregills supplies are “slightly hard,” while the Winterhope water is “moderately soft.” The others come within the category of “soft waters.”

Two hundred and three samples were examined to ascertain the amount of Lead passing into solution when the water was allowed to remain in contact with lead service pipes for several hours—generally overnight. Ordinarily the amount present was well below that usually accepted as the safety limit. Samples from one supply, however, taken at a point where abnormal conditions imposed unusually severe conditions, sometimes showed amounts in excess of this limit. At other sampling points on the system this supply was satisfactory.

Sixteen samples comprising raw, filtered, and effluent water from the filters at Kettletonhead and Winterhope were examined as a check on the operation of the filters.

(b) Other Samples.

The customary routine investigation of proposed new supplies, or of complaints regarding those presently in use involved the examination of 70 samples. One of these presented certain abnormal features, and the sanitary analysis was subsequently supplemented by an examination of the saline residue. A partial examination was also made of a similar sample from another source. The results of the analysis are as follows :—

Ions.						(i)	(ii.)
						Parts per 100,000	
Calcium	Ca.	...	...	...	...	6.11	—
Magnesium	Mg.	...	...	...	...	.60	—
Potassium	K.	...	...	...	...	.66	2.61
Sodium	Na.	...	...	...	...	1.25	1.25
Lithium	Li.	...	...	...	...	—	—
Carbonate	CO ₃	...	...	...	...	3.41	—
Sulphate	SO ₄	...	...	...	...	9.52	—
Nitrate	NO ₃	...	...	...	...	4.12	10.60
Chloride	Cl.	...	...	...	...	1.67	2.49
Total Ions	...	...	...	...	...	27.34	16.95

Sample No. 1, from a well in the Hightae area, contains more Potassium Compounds than is usual, while Sulphates and Nitrates are present in quantity.

No. 2 is remarkable for its Potassium and Nitrate contents, and differs little from another sample from the same source examined during the previous year.

In 18 instances a partial examination sufficed. In 9 the object was to determine the extent of any metallic contamination—lead and/or copper. The examination of 8 samples (4 from each of 2 sources) confirmed the suspicion that extraneous water was gaining access to these supplies. Suspended Matter present in one sample consisted of the customary mineral and vegetable particles with crustacea and free swimming Protozoa.

WATER—RIVER.

Five series of samples were collected from the Kirk and Turnmuir Burns and associated streams near Lockerbie Sewage Disposal Works. Generally, the results indicated that the Kirk Burn, prior to admixture with the Sewage Burn, which latter receives the effluent from the Lockerbie Sewage Disposal Works, consists of "clean" water. Immediately below the point of inflow of the Sewage Burn, and in the absence of waste liquor from the Creamery, the Turnmuir Burn cannot be regarded as "polluted." By the time it reaches the Sawmill it is rapidly approaching a "clean" condition. During the summer, however, when much creamery waste is present in the sewage, the Turnmuir Burn at the Sawmill, and even at the River Annan, is definitely polluted.

A series of 12 samples taken from the River Nith between points just above the entry of the effluent from Heathhall and the Dumfries Burgh Boundary consisted in each case of "clean" water. Two series of 13 samples were taken from the Kirkpatrick Burn with a view to determining the fitness, or otherwise, of the water for receiving sewage effluent from a proposed drainage area.

SEWAGE AND SEWAGE EFFLUENT.

Comparison of the analyses of samples of Tank Liquor and of Sewage Effluent collected at Kirkconnel, Sanquhar, Thornhill, and Moniaive Sewage Disposal Works in June, and from the works at Eaglesfield in July, showed in every case a very satisfactory degree of purification. The effluents were fully nitrified, well oxygenated, and satisfactory in other respects. The works themselves were operating satisfactorily and were being maintained in good order, apart from the tanks at Kirkconnel, where sludging is difficult. Effluent from Ecclefechan was also satisfactory.

The examination of four samples of Sewage, collected at different parts of the Moniaive Works, revealed the presence of traces of Sulphuretted Hydrogen in the liquor issuing from the sprinkler arms. Further investigation

showed that the period of sedimentation was unduly prolonged, and certain temporary alterations have since been made in the mode of operation to remove the cause of any possible nuisance. The examination of further samples, both in the Laboratory and at the Works, has since shown the absence of Sulphuretted Hydrogen and of its accompanying odour.

Two samples of Sewage Effluent from Lockerbie Works, taken during March when the incoming sewage was almost entirely of domestic origin, were satisfactory, but further samples of Effluent and of Tank Liquor showed unmistakably the intense polluting power of Creamery Waste Liquors.

MILK.

In connection with the Milk (Special Designations) Order (Scotland), 1936, the County Veterinary Inspector submitted 389 samples of Milk. 282 of these came from the herds of licensed producers, *i.e.*, consisted of Certified, T.T., and Standard Milk. The examination was usually restricted to the determination of the Milk Fat Content. Results in the form of quarterly averages are given below, but in compiling the table 23 samples taken from individual cows and under special circumstances have been excluded. For comparative purposes the corresponding averages for samples received from the Stewartry and Wigtownshire are included, together with the data for samples submitted under the Food and Drugs Act. The latter, when "not genuine" samples are excluded, afford a fair index of the Fat Content of ordinary milk.

Table No. 1.

Quarter.		Graded.				Food and Drugs.			
		Dfs.		Kbt.		Wig.		Dfs. Kbt. & Wig.	
		No.	Fat.	No.	Fat.	No.	Fat.	Fat.	Fat.
1 ...	...	50	3.98	6	3.76	6	3.73	3.58	3.90
2 ...	...	86	3.82	81	3.72	26	3.58	3.38	3.49
3 ...	...	85	4.04	36	3.88	24	3.99	3.76	4.00
4 ...	...	38	4.14	32	4.32	32	4.37	4.00	4.01
		259	3.97	155	3.88	88	3.99	3.71	3.83
Year.									
1936	...		3.96		3.77		4.15	3.64	3.76
1935	...		3.90		3.89		3.72	3.60	3.52

The Dumfriesshire figures show little change. Those for Kirkcudbrightshire and Wigtownshire show a slight rise and fall respectively.

Twenty-two samples involving 15 herds in a total of 62 contained less than 3·5 per cent. of Fat—the minimum percentage fixed by the Milk (Special Designations) Order (Scotland), 1936. The figures ranged from 3·45 per cent. to 2·60 per cent., with a mean deficiency of ·27 per cent.

Twenty-three samples from individual cows and from small groups of cows were submitted during the investigation of a complaint that milk from 2 farms was deficient in fat. They contained percentages of Milk Fat varying from 2·10 per cent. to 4·05 per cent., with an average of 3·32 per cent. 104 other samples, including 35 taken from attested herds, contained on an average 4·07 per cent., the extremes being 2·70 per cent. and 11·5 per cent.

Three samples each showed “acidity” equivalent to 17 c.c.s N. per Litre, or expressed as Lactic Acid ·15 per cent., and complied easily with the requirement of the Scottish Milk Marketing Board—the titratable acidity of the milk should not exceed ·2 per cent. expressed as Lactic Acid. There were no other complaints during the year regarding acidity.

FOOD AND DRUGS.

The Inspector appointed under the Food and Drugs Act* submitted 171 samples. These are considered later together with similar samples from Kirkcudbrightshire and Wigtownshire.

MISCELLANEOUS.

Viscera submitted by the County Veterinary Inspector were found to contain Arsenic to the extent of 1/10th grain per pound.

The County Engineer submitted portions of a deposit removed from electric water heaters in use on the Ecclefechan (Haregills) supply. It consisted almost entirely of Carbonates of Lime and Magnesia, and was derived

* Joint Committee appointment.

from the Temporary Hardness of that supply. Although this water is only "slightly" hard—Temporary 12, Permanent 2 parts—it is considerably harder than the majority of the other Special Water District Supplies. The deposit also contained fragments of Lead, together with Compounds of Lead, which evidently became detached during the removal of the incrustation.

The remaining samples include six of Alumina and Alumina Solution, and one of Lime Water, examined in connection with the operation of the filters at Kettleton.

Table No. 2 summarises the various samples examined on behalf of Dumfriesshire County Council.

Table No. 2.

PUBLIC HEALTH DEPARTMENT.

Water (1) Potable.						
(a) S.W.D. Supplies	...	...	...	...	73	
S.W.D. Supplies—Partial	...	...	...	...	219	
(b) Others	...	...	...	...	70	
Others—Partial	...	...	...	...	19	
					—	381
(2) River Water	...	...	...	...	...	52
Sewage and Sewage Effluent	...	...	...	...	...	26
Milk (Certified, T.T. and Standard)	...	...	...	...	282	
Others	...	...	...	...	107	
					—	389
Miscellaneous	...	...	...	...	...	9
*Food and Drugs	...	...	...	...	...	171
						1028

* Act administered by Joint Committee.

(ii) Kirkeudbright County Council.

Of 47 samples of Water examined for potability, 25 were reported as unsuitable and one of doubtful purity. Water from a shallow well, sampled on two occasions, contained abundant Nitrite, whilst the Nitrogen as Nitrates reached the abnormal amount of more than 1 part per 100,000.

Another shallow well in a garden had been treated with Lime to such an extent that the water had a lime content of roughly 1/14th of that of Lime Water (Liquor Calcis B.P.). This sample on warming gave off the

characteristic odour of stale urine, and in other respects resembled sewage effluent rather than potable water.

A partial examination was made of 10 samples. 6 of these were in respect of plumbo-solveney ; the others were submitted in connection with the operation of the filters at Lochenkit.

Three samples of River Water taken from the River Nith above the boundary with Dumfries Burgh consisted of "very clean" water as defined by the Royal Commission of Sewage Disposal.

Four samples of Water taken from Carlingwark Loch were submitted in connection with the investigation of complaints of nuisance, odours, etc. Three samples were unlikely to cause annoyance, two in fact consisted of "clean" water. The remaining sample had a slight odour of sewage, and was in other respects in a "doubtful" condition. Given favourable circumstances, this might have caused odour and nuisance in the neighbourhood.

The County Veterinary Inspector submitted 256 samples of Milk, mainly in connection with the Milk (Special Designations) Order. 155 of these came from the herds of licensed producers, and have been considered with the corresponding Dumfriesshire and Wigtownshire samples, p. 95.

Fifteen samples from 10 herds in a total of 36 contained amounts of Fat varying from 1.05 per cent. to 3.40 per cent., with an average of 2.96 per cent. or .54 per cent. less than the minimum percentage prescribed by the Order.

In 101 other samples, including 54 from attested herds the percentages of Fat ranged from 2.45 to 9.0, with an average of 4.06.

Eighty-one samples of Food and Drugs were received from the Sampling Officers. They are considered later, p. 94.

Ice Cream, submitted as pure Cream Ice, was found to contain 15 per cent. of Milk Fat and to be of excellent quality.

Table No. 3 shows the various samples received from Kirkeudbright County Council.

Table No. 3.

Water.							
(a) Potable	...	...	...	...	...	47	
(b) Potable—Partial	...	...	...	...	...	10	
(c) River	...	...	...	...	...	7	
							64
Milk.							
Certified and T.T.	...	...	...	...	...	155	
Others	...	...	...	...	...	101	
							256
Miscellaneous (Ice Cream)	...	...	...	...	...	...	1
Foods and Drugs	...	...	...	...	...	...	81
							402

(iii) Wigtownshire County Council.

Of 4 samples of Water examined for fitness for dietetic use, 2 were reported unsuitable.

Samples of Water from the River Cree and of Effluent from Newton-Stewart Burgh sewer were examined in connection with alleged river pollution. The river water gave a faint positive reaction for "Tar Acids," indicating the presence of Waste Liquor from a Gas Works, but consisted of "very clean" water. The effluent was of "weak" to "medium" concentration, gave a strong reaction for "Tar Acids," and from its odour and appearance obviously contained Waste Liquor from a Gas Works.

Effluent from a Creamery, and containing some 20 per cent. of separated milk, was equivalent in polluting power to 10 times its bulk of "strong" sewage. Having regard to all the circumstances, it seemed unlikely to cause damage to the sewerage system in question.

The County Veterinary Inspector submitted 121 samples of Milk. 88 of these consisted of milk from graded herds, and have been considered with those taken in Dumfriesshire and Kirkeudbrightshire. 12 samples from 6 herds in a total of 16 contained amounts of Fat varying from 3.00 per cent. to 3.45 per cent., with an average of 3.30 per cent. or .20 per cent. less than the minimum percentage prescribed by the Order.

The remaining 33, including 20 from attested herds, contained on an average 4.11 per cent. of Milk Fat, the extremes ranging from 3.30 per cent. to 5.55 per cent.

One hundred and eight samples of Food and Drugs submitted by the Sanitary Inspectors for the County and for the Burgh of Stranraer are considered with the other Food and Drugs samples.

One formal sample of Fertiliser and 3 (informal) of Feeding Stuffs were received from the Official Sampler and Inspector. One Feeding Stuff contained an excess of Oil, .8 per cent., but not to the prejudice of the purchaser; otherwise the composition of the samples complied with the particulars given in the Statutory Statements.

The following table shows the various samples received from Wigtownshire County Council:—

Table No. 4.

Water.							
(1) Potable	...	...	...	...	...	...	4
(2) River	...	...	...	...	...	...	1
							—
Sewage and Sewage Effluent	...	...	...	...	...	...	5
Milk.							2
(a) Certified and T.T.	...	...	...	...	...	...	88
(b) Others	...	...	...	...	...	...	33
							—
Food and Drugs	...	...	...	...	...	...	121
Fertilisers and Feeding Stuffs	...	...	...	...	...	...	108
							4
							—
							240
							—

FOOD AND DRUGS (ADULTERATION) ACT.

Three hundred and sixty samples in all were submitted by the Joint Committee of Dumfriesshire and the County Councils of Kirkeudbrightshire and Wigtownshire. Particulars of these are shown in Appendix 2.

Details of 17 samples (4.7 per cent.) certified as "not genuine" are given in Table No. 5.

Table No. 5.

DUMFRIESSHIRE.			Milk.			
Sample						
No.	Fat.	N.F.S.	T.S.	Ash.	△	
865	1.76	8.79	10.55	.77		Def. Fat 41%
912	2.88	9.46	12.34	.75		Def. Fat 4%
981	3.64	8.05	11.69	.70	.513° C.	5% added water.
982	3.34	8.01	11.35	.68	.499° C.	5% added water.
996	2.98	7.49	10.47	.65	.472° C.	11% added water.
997	3.38	8.15	11.53	.71	.507° C.	4% added water.
998	3.36	8.04	11.40	.70	.518° C.	5% added water.
KIRKCUDBRIGHTSHIRE.						
101	2.72	8.58	11.30	.74		Def. Fat 9%
102	2.72	8.55	11.27	.75		Def. Fat 9%
103	2.70	8.52	11.22	.75		Def. Fat 10%
WIGTOWNSHIRE.						
*4A	3.40	8.84	12.24	.76	(T.T.)	Def. Fat 2%
*4B	3.35	8.90	12.24	.75	(T.T.)	Def. Fat 4%
50	3.30	7.56	10.86	.63	.458° C.	11% added water.

Other Samples.

DUMFRIESSHIRE.

*880 Calcined Magnesia ... Loss on ignition, 7.66%

WIGTOWNSHIRE.

- 45 Rum ... Reduced by admixture of water to 37.78 Degrees under Proof.
- *52 Mince ... Sulphite Preservative equivalent to Sulphur Dioxide, 50 parts per million.
- *53 Mince ... Sulphite Preservative equivalent to Sulphur Dioxide, 30 parts per million.

* Informal Samples.

Successful proceedings were instituted in 2 cases involving Milk (Dumfries No. 865, and Wigtown No. 50), and in respect of Rum, No. 45 (Wigtownshire).

The vendor of the Kirkcudbrightshire samples, 101, 102, and 103, was dealt with under the Special Designations Order instead of the Food and Drugs Act, his licence being suspended for a period of 1 month.

Although 2 samples of Milk each contained 11 per cent. of added water, it is satisfactory to note that there were no cases of gross watering such as occurred last year, when 4 samples each contained more than 30 per cent. of added water, while in one case as much as 43 per cent. was present.

NATIONAL HEALTH INSURANCE.

Twenty samples of Medicine received from the Insurance Committee consisted of 14 liquid and 6 solid medicaments, the latter comprising 4 powders and 2 ointments.

Generally, the analytical results indicated a high degree of precision in dispensing. In one instance, however, 5·3 dr. of Potassium Bromide was supplied in lieu of 6 prescribed ; in another an excess of ·29 dr. Ammonium Citrate was present ; while 2·25 dr. of Bismuth Carbonate were found in a sample where 2 drs. had been prescribed. In this last case, however, the difference is probably due largely to the difficulty of sampling accurately a liquid containing heavy solid matter in suspension.

With the exception of the cases just mentioned, the differences observed between the amounts prescribed and those found by analysis were usually within the limits laid down in the British Pharmacopœia for the standardisation of more potent preparations.

SUNDRY.

Incrustation removed from a water main was found to consist mainly of Oxides of Iron, with vegetable matter of an acidic nature, a type not infrequently found in this area.

A sample of " Fat " from one of the Sewage Works was found to consist almost entirely of fatty acids resulting from the decomposition of fat. The suggestion had been made that the original fat was probably butter, but the fatty acids characteristic of butter fat were entirely lacking.

A sample alleged to be Offal consisted of large masses of flesh-like solid, but microscopic examination showed that it was composed of dense masses of fungal growth.

Two samples of Effluent submitted by a Fishery Board contained carbonates of lime and magnesium in suspension. The liquid portion consisted of a dilute solution of sodium hydroxide (Caustic Soda), together with

smaller amounts of other salts. Another effluent, from a similar Board, consisted of Creamery Waste Liquor in admixture with domestic sewage, and had a polluting power of 3 to 4 times as great as that of "strong" domestic sewage.

Either effluent, in its then concentration, would have been intensely poisonous to fish life; but provided dilution were adequate, as it seemed to be, little damage was to be feared.

Twenty-two samples of Boiler Water taken from the boilers at Loehmaben Sanatorium were examined to ensure that the chemical treatment applied to the feed water was maintaining the boiler water in a non-corrosive and non-incrusting condition. During the year certain changes were necessary in the mode of treatment, as the method of firing the boilers had undergone substantial alteration. The boiler-house staff also make alkalinity tests of the feed water regularly.

The remaining 25 samples consist of:—

Water...	...	...	...	...	14
Fertilisers	...	...	...	...	7
Feeding Stuffs	...	...	...	...	2
Milk	...	...	...	...	2

and were examined for Local Authorities or private individuals. They call for no particular comment.

Appendix 3 shows the origin and nature of the various samples submitted throughout the year.

JOHN W. HAWLEY.

[illegible]

District.	Quarter.	Total Solids.	Saline Residue.	Volatile Matter.	Chlorine (Cl).	Nitrates (N).	Nitrites (N).	Saline Ammonia.	Albuminoid Ammonia.	Oxygen absorbed in 4 hours.	Iron (Fe).	pH Value.
Eaglesfield	1	17.28	13.12	4.16	1.20	.11	Nil.	Nil.	.0008	Nil.	.009	7.0
Do.	2	16.88	13.52	3.36	1.20	.080	Nil.	trace	.0006	Nil.	.015	7.2
Do.	3	17.44	13.36	4.08	1.00	.080	Nil.	.0006	.0006	Nil.	.006	7.2
Do.	4	18.72	14.56	4.16	1.10	.088	Nil.	trace	.0010	Nil.	.003	7.3
Ecclefechan	1	18.16	14.40	3.76	1.40	.17	Nil.	Nil.	trace	Nil.	.005	7.5
Do.	2	19.36	14.24	5.12	1.60	.184	Nil.	Nil.	.0006	Nil.	1.3	7.7
Do.	3	9.36	6.56	2.80	1.10	.024	Nil.	.0012	.0114	.306	.013	7.5
Do.	4	10.96	7.60	3.36	1.2	.040	Nil.	.0012	.0146	.317	.006	7.5
Glencaple	1	11.52	7.68	3.84	2.10	.20	Nil.	trace	.0036	.041	.009	7.0
Do.	2	15.12	8.80	6.32	2.20	.184	Nil.	.0006	.0118	.110	.035	7.2
Do.	3	16.48	12.40	4.08	2.10	.17	Nil.	.0010	.0086	.189	.007	8.2
Do.	4	15.04	10.48	4.56	1.80	.28	Nil.	.0008	.0116	.086	.006	7.2
Kirkconnel	1	7.68	6.84	1.84	1.10	.008	Nil.	Nil.	.0050	.125	.015	7.4
Do.	1	19.52	16.80	2.72	1.20	.032	Nil.	Nil.	.0022	.049	.007	7.7
Do.	2	8.40	5.92	2.48	1.00	Nil.	Nil.	trace	.0040	.146	.007	7.4
Do.	2	23.60	19.60	4.00	1.00	.008	Nil.	Nil.	.0030	.062	.013	8.0
Do.	3	8.08	6.56	1.52	.80	.008	Nil.	.0006	.0068	.409	.013	7.3
Do.	3	23.84	21.36	2.48	1.00	.016	Nil.	trace	.0020	Nil.	trace	8.0
Do.	4	8.72	6.32	2.40	.90	.080	Nil.	.0040	.0176	.f67	.026	6.9
Do.	4	9.20	6.56	2.64	.90	.064	Nil.	.0014	.0190	.611	.015	6.9
Lockerbie Burgh	1	13.76	10.96	2.80	1.30	.056	Nil.	.0008	.0054	.120	.009	7.5
Do.	3	13.92	10.88	2.04	.90	.024	Nil.	.0006	.0064	.166	.010	7.7

District.	Quarter.	Total Solids.	Saline Residue.	Volatile Matter.	Chlorine (Cl.)	Nitrates (N)	Nitrites (N)	Saline Ammonia.	Albuminoid Ammonia.	Oxygen absorbed in 4 hours	Iron (Fe).	pH Value.
Moniaive	1	6.56	3.20	3.36	1.20	.020	Nil.	traco	.0046	.083	.007	7.1
Do.	2	8.96	6.40	2.56	1.00	.008	Nil.	Nil.	.0060	.114	.016	7.5
Do.	3	9.60	8.48	1.12	1.0	.004	Nil.	.0008	.0074	.122	.003	7.3
Do.	4	7.60	6.08	1.52	1.10	.024	Nil.	.0012	.0070	.127	.009	7.4
Netherwood, Kelton, and Craigs	1	16.08	8.00	8.08	1.60	.056	Nil.	Nil.	.0036	.036	.005	7.5
Do.	2	15.68	12.16	3.52	1.50	.016	Nil.	traco	.0060	.036	.020	7.8
Do.	3	17.36	13.76	3.60	1.40	.016	Nil.	traco	.0092	.079	.020	7.8
Do.	4	15.60	12.88	2.72	1.40	.064	Nil.	Nil.	.0032	.033	.020	7.6
Penpont	1	8.08	6.08	2.00	1.50	.080	Nil.	traco	.0018	Nil.	.007	6.4
Do.	2	8.24	6.10	2.14	1.40	.048	Nil.	Nil.	Nil.	Nil.	.013	6.4
Do.	3	9.52	7.68	1.84	1.0	.032	Nil.	Nil.	.0008	Nil.	.009	6.4
Do.	4	8.72	7.92	.80	1.00	.048	Nil.	.0004	.0016	Nil.	.003	6.4
Ruthwell and Raffles	1	10.88	6.48	4.40	2.50	.040	Nil.	traco	.0036	.107	.009	7.0
Do.	2	10.40	6.88	3.52	2.40	.040	Nil.	.0006	.0060	.072	.012	7.1
Do.	3	10.96	7.28	3.68	2.0	.032	Nil.	traco	.0060	.086	.003	7.3
Do.	4	11.36	8.64	2.72	1.6	.12	Nil.	.0008	.0120	.136	.006	7.0
Rowanburn	1	14.80	6.64	8.18	1.20	.42	Nil.	.0006	.0058	.180	.012	6.1
Do.	2	14.00	8.40	5.60	1.40	.50	Nil.	.0006	.0036	.036	.005	6.2
Do.	3	15.92	10.32	5.60	1.10	.55	Nil.	.0006	.0048	.068	.015	6.2
Do.	4	16.64	11.84	4.80	1.40	.61	Nil.	.0008	.0076	.138	.005	6.3
Thornhill	1	9.04	6.88	2.16	1.20	.064	Nil.	Nil.	.0008	.023	.009	6.8
Do.	2	10.32	7.20	3.12	1.20	.056	Nil.	Nil.	Nil.	Nil.	.025	6.8
Do.	3	9.36	8.64	.72	.90	.024	Nil.	Nil.	.0006	Nil.	.005	7.1
Do.	4	7.84	7.36	.48	1.10	.04	Nil.	.0008	.0024	.006	.007	6.9

Appendix 2.

Table showing the Number and Nature of Samples received under
the Food and Drugs Act.

Article.	County Councils of			Total	Adulterated
	Dfs.	Kbt.	Wig.		
Milk	64(7)	40(3)	47(3)	151	13
Milk (Condensed) ...	...	...	3	3	...
Cream ... ..	...	2	...	2	...
Butter	24	5	10	39	...
Margarine ... ..	...	6	2	8	...
Lard	16	2	2	20	..
Cooking Fat ... ..	...	1	...	1	...
Cheese	2	...	3	5	...
Tea ... ..	...	8	2	10	...
Coffee	9	...	...	9	...
Cocoa	3	...	...	3	...
Cream of Tartar	10	2	2	14	...
Baking Soda ... ..	...	1	1	2	...
Pepper	6	1	2	9	...
Mustard	1	...	...	1	...
Vinegar ... ..	...	...	1	1	...
Arrowroot... ..	3	...	...	3	...
Ground Ginger	2	...	...	2	...
Cinnamon	1	...	...	1	...
Flour ... ..	...	...	1	1	...
Sugar ... ..	...	2	...	2	...
Barley ... ..	...	...	1	1	...
Mince	4	2	8(2)	14	2
Sausages	1	5	7	13	...
Sausage Roll	1	...	...	1	...
Sausage Meat ... ..	...	1	...	1	...
Sausage (Sliced)	2	...	...	2	...
Veal, Ham and Tongue ... ..	...	...	1	1	...
Copex (Vegetable Fat) ... ..	...	...	1	1	...
Tinned Kippers ... ..	...	...	1	1	...
Green Peas (Tinned) ... ..	...	...	1	1	...
Fruit Dainties ... ..	...	...	1	1	...
Fruit Salad ... ..	...	...	1	1	...
Lemon Curd ... ..	...	...	1	1	...
Whisky ... ..	...	3	3	6	...
Rum ... ..	...	...	2(1)	2	1
Soda Water	5	...	...	5	...
Ginger Wine Essence ... ..	...	...	1	1	...
Essence of Rennet ... ..	...	...	1	1	...
Gregory Powder	7	...	...	7	...
Liquorice Powder	5	...	...	5	...
Calcined Magnesia	3(1)	...	...	3	1
Epsom Salts	2	...	...	2	...
Camphorated Oil ... ..	...	...	1	1	...
Cod Liver Oil ... ..	...	...	1	1	...
Total	171(8)	81(3)	108(6)	360	17

Appendix 3.

	Water.	Sewage and Sewage Effluent.	Food and Drugs.	Milk.	Fertilisers and Feeding Stuffs.	Medicines.	Miscel- laneous.	Total.
Dumfries County	433	26	171*	389	...	...	9	1028 (860)
Kirkcudbright County Council	64	...	81	256	...	...	1	402 (236)
Wigtownshire County Council	5	2	108	121	4	...	...	240 (192)
Dumfries County Insurance Committee.	...	...	...	...	...	6	...	6 (6)
Dumfries and Maxwelltown Insurance Committee.	...	...	...	...	...	4	...	4 (4)
Kirkcudbrightshire Insurance Committee.	...	...	...	...	...	6	...	6 (7)
Wigtownshire Insurance Committee.	...	...	...	...	...	4	...	4 (4)
Other Local Authority ...	25	...	...	...	...	...	3	28 (30)
Private	14	...	...	2	...	...	9	25 (25)
Total	541 (516)	28 (12)	360 (387)	768 (405)	4 (2)	20 (21)	22 (21)	1743 (1364)

* Act administered by Joint Committee.

A. BACTERIOLOGICAL LABORATORY.

County Health Office,
County Buildings, Dumfries,
8th June, 1938.

*To The County Medical Officer,
County Buildings, Dumfries.*

Sir,

I beg to submit my report for the Bacteriological work performed in this laboratory during 1937.

During the twelve months ending 31st December, 6920 bacteriological examinations were made, being an increase of 426 on the figure for the previous year.

For the purpose of comparing the figures of examinations made during 1937 and 1936 the following data are given :—

	1937.	1936.	Increase or Decrease.	
Swabs for Diphtheria	... 2570	2599	...	29
Sputa ... ..	... 282	330	...	48
Widals ... ..	... 186	117	69	...
Blood Culture ... ..	... 16	12	4	...
Blood Examinations	... 199	167	32	...
Cerebro-Spinal Fluid	... 95	39	56	...
Fæces ... ..	... 69	33	36	...
Urines ... ..	... 162	145	17	...
Pus and Pathological Fluids	82	79	3	...
Miscellaneous ... ..	... 27	58	...	31
Wassermann ... ..	... 277	317	...	40
Gonococci ... ..	... 315	277	38	...
Milk ... ..	... 1799	1417	382	...
Water ... ..	... 212	325	...	113
Cows' Sputa ... ..	... 372	347	25	...
Anthrax ... ..	... 245	218	27	...
Vaccines ... ..	... 12	14	...	2
Total	... 6920	6494	689	263

Swabs for Diphtheria.—These have been taken for the purpose of diagnosis, of determining the length of treatment, and of detecting carriers. They are not a true index of the amount of Diphtheria present in the area, as in some cases it is necessary to take six or seven or even more swabs before reporting that the throat is free from *C. Diphtheriæ*. Variations may be expected from year to year. The year 1937 shows a small decrease of 29. The number of swabs taken in the County of Dumfriesshire shows an increase of 91, having risen from 970 to 1061. In the area outwith the County served by this laboratory the number of swabs submitted shows a decrease of 120, having fallen from 1629 to 1509.

The number of *Sputa* examined is 282 as compared with 330. 266 were examinations for the tubercle bacillus, the remaining 16 being for the determination of the causal organism in respiratory disease.

Widal's reaction, i.e., agglutination tests for bacilli of the enteric group chiefly, has risen from 117 to 186.

Fæces examinations show an increase. Towards the end of 1937 dysentery of a mild type was fairly widespread in the County. It was due to *B. Dysenteriæ* Sonne. Sonne is the type of dysentery bacillus, the name being taken from that of a Danish bacteriologist, who first drew attention to the disease during the Great War. Small outbreaks have been reported from time to time in Great Britain since 1926, but reports during the winter of 1937 indicate that the disease is widespread and likely to remain with us in endemic form. Fortunately the mortality is low, being chiefly confined to the weakly ones at the extremes of life.

Veneral Diseases.—To help with the detection of this in suspected patients, 315 examinations were made for Gonococci, and 277 Wassermann reactions were carried out. The former show an increase, which is offset by an almost equal decrease in the latter.

Milk examinations show a large increase from 1417 to 1799. Out of the latter number of 1799, 1241 were done for the County Authorities and 558 for outside sources. The figures for last year were 1040 for the County Authorities and 377 for outside sources.

As regards Dumfriesshire, these milks taken from various sources were subjected to examinations for (1) Bacterial Count, (2) Presence of tubercle bacillus, (3) Presence of other pathogenic organisms, *e.g.*, the causal organism of mastitis.

Examinations of milk from the County of Dumfries for tubercle bacilli numbered 489, of which 15 were positive. These figures are not necessarily an index of bovine tuberculosis, as animals which are obviously tuberculous from a clinical point of view are often taken under the Tuberculosis Order without a bacteriological examination. The samples submitted are usually those in which there is an element of doubt.

Two hundred and eighty-five milks were tested for organisms other than tubercle bacilli and 467 milks for bacterial count.

Anthrax again shows an increase, being 245 as compared with 217 last year. There were 25 positive results as against 10 last year.

Cows' Sputa. — 372 Sputa were examined, of which 354 were done for the County Authorities. Of this total of 354, 49 were positive.

Waters.—212 samples were examined, and of this number 51 were done for the Stewartry, 5 for Wigtownshire, and 7 for private individuals. The remaining 149 consisted of quarterly examinations of the supplies to the Special Water Districts, and of other waters used or intended for use as domestic supplies. A table has been

drawn up showing the results of examinations of Special Water District Supplies, so far as the presence of coliform bacilli is concerned.

A table has been drawn up showing the sources of pathological material and the material submitted.

I have the honour to be, Sir,

Your obedient Servant,

EDWARD ARMSTRONG.

TABLE SHEWING SPECIMENS SUBMITTED AND
SOURCE OF SUPPLY.

	Dumfries County.	V. D. Clinic.	Dumfries Burgh.	Stewartry of Kirkcud- bright.	Wigtown County.	Dumfries and Galloway Royal Infirmary.	Private.	Total.
Swabs (Diphtheria) ...	1061	...	151	1120	208	30	...	2570
Sputa	113	...	77	62	27	3	...	282
Widals	44	...	30	45	17	50	...	186
Blood Cultures	5	...	...	3	1	5	2	16
Blood Examinations	50	...	30	8	8	69	34	199
Cerebro-Spinal Fluid	40	...	...	13	1	41	...	95
Fæces	44	...	10	9	...	6	...	69
Urines	46	...	74	17	1	6	18	162
Pus and Pathological Fluids	20	...	5	11	10	36	...	82
Miscellaneous	17	...	4	3	...	...	3	27
Wassermann	28	59	51	14	31	94	...	277
Gonococci	17	233	22	17	24	2	...	315
Milk	1241	...	...	303	242	...	13	1799
Water	149	...	...	51	5	...	7	212
Cows' Sputa	354	...	...	17	1	...	...	372
Anthrax	245	...	...	...	...	..	...	245
Vaccines ... ..	...	...	...	...	...	...	12	12
Total	3474	292	454	1693	576	342	89	6920

WATER SUPPLIES TO THE SPECIAL WATER DISTRICTS.

Smallest amount (in c.cs.) of Sample in which Coliform Bacilli were detected.

— Indicate Coliform Bacilli absent from 100 c.cs.

Quarters.	I.	II.	III.	IV.
Lower Annandale ...	{ —	{ 10 c.cs.	{ 100 c.cs.	{ —
Bankshill ...	{ —	{ —	{ 1 c.c.	{ —
Blackshaw ...	—	10 c.cs.	10 c.cs.	—
Crawick... ..	—	—	—	—
Crawick... ..	—	—	100 c.cs.	100 c.cs.
Dumfries (Landward)	100 c.cs.	—	—	10 c.cs.
Eaglesfield ...	—	10 c.cs.	1 c.c.	100 c.cs.
Ecclefechan ...	—	—	100 c.cs.	10 c.cs.
Glencaple ...	—	—	0·1 c.c.	—
Kirkconnel ...	{ 100 c.cs.	{ —	{ 100 c.cs.	{ 1 c.c.
Kirkconnel ...	{ 100 c.cs.	{ 1 c.c.	{ 10 c.cs.	{ 1 c.c.
Lockerbie Burgh ...	—	Not done	100 c.cs.	Not done
Moniaive ...	—	1 c.c.	100 c.cs.	—
Netherwood, Kelton, & Craigs ...	100 c.cs.	—	—	100 c.cs.
Penpont ...	—	—	—	100 c.cs.
Ruthwell and Raffles ...	0·1 c.c.	100 c.cs.	—	—
Rowanburn ...	1 c.c.	1 c.c.	1 c.c.	0·1 c.c.
Thornhill ...	100 c.cs.	10 c.cs.	100 c.cs.	—

REPORT

ON

MEDICAL INSPECTION

Report on the Medical Inspection of School Children.

For the Year ending 31st July, 1938.

I.—List of Staff.

Chief School Medical Officer.

JOHN RITCHIE, M.B., Ch.B., M.R.C.P.E., D.P.H.

Assistant School Medical Officers.

E. B. MUNRO, O.B.E., M.B., Ch.B., D.P.H., Lieut.-Col.
I.M.S. (Retd.).

AGNES F. TURNER, M.B., Ch.B., D.P.H.

School Dentist.

AGNES J. DALZIEL, L.D.S.

Consulting Oculist.

JAMES A. ROSS, M.A., M.B., Ch.B., Carlisle.

II. (a).—Number of Schools.

The number of schools under medical inspection is 99.

(b).—Number of Children.

The average number on the roll was 12,769.

III.—Number of Routine Visits to Schools.

The number of routine visits to schools for systematic examination was 280.

IV.—Number of Special Visits.

(A whole day comprises two visits.)

For Examination of Errors of Refraction	...	...	14
For Examination for Infectious Disease	...	...	21
For Examination for Mental or Physical Defect	...	...	135
For Examination of Verminous Children, Absence from School, etc.	...	...	23
			193

V.—Sanitary Conditions of Schools.

A. LIGHTING.

Electric lighting has been provided in most of the schools, and a further five schools will be wired during the summer holidays ; they are St. Andrew's Girls', Cogricburn, Durisdeer, Hightae, and Nethermill. Breconbeds and Westerkirk are too distant from the main supply to allow of current being supplied. Brownhall, however, which is close to the main current supply, still has oil lamps.

The electric lighting in the art room and technical block of Annan Academy is reported to be indifferent.

B. VENTILATION.

This has been improved in Birleyhill, where more windows have been made to open.

In Brownhall and Lochmaben windows do not open sufficiently and also fit badly in the former school.

Draughts are a complaint in Gilnockie, Glencaple, Megdale, and Tynron Public Schools.

C. HEATING.

Heating on the whole has been much improved, as electric radiators have been supplied in many cases. These, however, must be judiciously placed, as pupils

sitting nearby are apt to be too hot. Birleyhill, Breconbeds, Cogrieburn, Evan Water, Gair, Harlaw, and Westerkirk have open fires, which appear to be inadequate for the size of the room to be heated. In these schools oil stoves have been supplied. In Applegarth one radiator has a poor water circulation.

The central heating installations in Maxwelltown and Moniaive are not working as well as they should. The stokerroom in Eaglesfield is apt to become flooded after heavy rain.

D. CLEANSING AND DISINFECTION.

This has been carried out systematically, and the school buildings as a whole are clean and bright.

E. WATER SUPPLY.

A new water supply by gravitation has been constructed in the County, resulting in many schools receiving adequate and satisfactory water.

In Applegarth, Glenzier, Johnstonebridge, and St. Mungo, water becomes scarce in the summer.

In Moniaive School water seems to be scarce frequently.

F. SANITARY CONVENIENCES.

The new water supply has made possible the installation of water-closets. These have been supplied in some cases and arrangements are being made in others.

In St. Andrew's Girls' School and in Sanquhar Academy the water-closets are old-fashioned. In Maxwelltown School the boys in the infant department have to go a considerable distance to their latrines, and in Moniaive the shortage of water results in the latrines not being flushed properly.

Wash-basins are being provided for the first time in those schools where water and drainage are available.

Cloakroom accommodation is insufficient in St. Andrew's Boys' School, Lochmaben, Durisdeer, and Moniaive, and in view of the proposed reconstructions of some of these schools it is probable that this will be remedied.

Collin School has for some time had very inefficient drainage, which seems due to a difficulty in getting cleared the ditches surrounding the school.

G. PLAYGROUNDS.

These as a whole are still very rough and wet and quite unsuitable for physical training. It is very necessary that a large concrete area be provided for this purpose in each playground. Areas have been made in some schools, but these seem to be rather small.

Amisfield and Hutton playgrounds have been fenced, but Garrel and Penpont are still unprotected.

St. Michael's, Noblehill, Glasgow Street, and Maxwelltown are to have safety railings erected at their exits on the road.

H. DESKS.

In Hoddon School some of the desks are old and require overhauling.

I. MISCELLANEOUS.

Enquiries were made during the year concerning the probability of pens and pencils being a source of infection.

It was found that the methods adopted varied greatly in different schools, and also in the same school in the different classes. Schools in which pens and pencils were used in common represent 18 per cent. ; those in which each child had his or her own pencil and pen represent 48 per cent. ; and in the remaining 34 per cent. some had individual pencils and communal pens, others had communal pencils

and pens below the senior school standard, while the seniors kept their own, and so on through a variety of methods.

VI.—Organisation and Administration.

A. SYSTEM OF MEDICAL EXAMINATION.

The Department of Health requires the examination of each pupil at least three times during school life :—

- (1) As soon as possible after admission to school —
“ Entrants.”
- (2) During the intermediate stages (ages 9, 10, 11) —
“ Intermediates.”
- (3) Towards the end of the elementary period—“ Leavers.”

The instruction by the Department of Health, “ That every school be examined twice yearly at reasonable intervals,” has been carried out except in the case of Megdale, which was visited only once.

B. SCHOOL NURSES.

The District Nurse or Health Visitors are present, as far as possible, at medical inspections.

C. ARRANGEMENTS FOR "FOLLOWING UP."

The table below gives details :—

Nursing Association.	Cases notified.	Cases visited.	Number of reports.
Annan	139	139	228
Lower Annandale ...	131	130	292
Canonbie	12	12	13
Cumberland	5	5	10
Dalton and Mouswald	13	13	26
Dunscore	20	20	32
Eskdale and Langholm	34	34	52
Glencairn	4	4	7
Hoddam	26	26	31
Kirkconnel	126	126	332
Kirkmahoe	14	15	38
Kirkmichael	1	1	1
Lochmaben	30	30	44
Lockerbie	60	60	123
Moffat	41	41	60
Penpont	18	18	30
Ruthwell	8	8	13
Sanquhar	38	38	74
Stewartry	5	5	10
Thornhill	57	57	107
Tinwald, Torthorwald, etc.	33	32	30
<hr/>			
Total	815	814	1553
Health Visitors—Burgh	469	466	794
Health Visitors—County	166	166	377
<hr/>			
Grand Total	1450	1446	2724
<hr/>			

D. SUPERVISION OF INFECTIOUS DISEASE.

E. CO-ORDINATION WITH PUBLIC HEALTH SERVICE.

The arrangements under headings D. and E. are described in former reports.

VII.—Physical Condition of School Children.

A. TOTAL NUMBER EXAMINED.

(a) At Systematic Examinations.

Age.				Boys.	Girls.	Total.
Under 5 years	...	...	...	74	76	150
Age 5	„	...	...	514	472	986
„ 6	„	...	...	80	80	160
„ 7	„	...	...	24	29	53
„ 8	„	...	...	28	18	46
„ 9	„	...	...	651	666	1317
„ 10	„	...	...	32	37	69
„ 11	„	...	...	18	18	36
„ 12	„	...	...	19	24	43
„ 13	„	...	...	605	626	1231
„ 14	„	...	...	14	13	27
„ 15	„	...	...	...	3	3
„ 16 and over	...	...	...	41	39	80
				2100	2101	4201

Grouping the total number as Entrants, Intermediates, and Leavers, the figures are :—

				Boys.	Girls.	Total.
Entrants	...	...	...	720	675	1395
Intermediates	...	...	...	701	721	1422
Leavers	...	...	...	679	705	1384
				2100	2101	4201

(b) Special Cases.

There were 6061 children examined as special cases as follows :—

Re-examination of Notified Defects	...	...	...	2431
Vision Testing at age 7	...	...	...	1309
Re-examination of Pediculosis Cases	...	...	...	1638
At the request of Parent or Teacher	...	...	...	212
At the request of the School Medical Officer*	...	...	...	120
For Infectious Disease	...	...	...	65
For Mental and Physical Defect	...	...	...	286
				<hr/>
				6061
				<hr/>

* Includes children boarded out by the County Council.

B. NUMBER OF CHILDREN NOTIFIED TO PARENTS AS SUFFERING FROM DEFECTS AND PEDICULOSIS.

Total number examined, 10,262.

Number notified.	Defects %	Pediculosis %
(a) At Systematic examinations ... 430*	7·12	273
(b) Special cases... 291		484
		7·37

The number showing no defects at the Systematic examination was 302.

N.B.—A defective tooth, weight below average, etc., count as “defects.”

* Includes children below average nutrition who have been recommended to take milk in school—62 boys and 63 girls.

C. THE NUMBER OF CHILDREN WITH NOTIFIED DEFECTS
RECEIVING ATTENTION.

		No. Improved.	Per cent.
Number Re-examined :—			
(a) At Systematic Examinations	292	151	} 66.65
(b) As Special Cases	2431	1664	
Pediculosis Cases	1832	1292	70.52

D. AND E. CLOTHING AND FOOTGEAR.

Number Examined.		Underclad.		Overclad.		Clothing Dirty.		Unsatis- factory Footgear.	
		No.	%	No.	%	No.	%	No.	%
Boys	2100	3	0.14	...		5	0.24	2	0.09
Girls	2101	...		...		11	0.52	...	
Total	4201	3	0.07	...		16	0.38	2	0.05
Specials	...	17		...		51		15	

F. AVERAGE HEIGHTS AND WEIGHTS.

Before weighing the children, boots, shoes, and heavy outer garments are removed.

The following tables show the average heights and weights of boys and girls of all ages from 3 to 16 years :

Boys.

Age.	Number Examined	Average Heights in Inches.		Average Weights in Lbs.	
		Dumfries-shire.	Anthropo-metric Standard.	Dumfries-shire.	Anthropo-metric Standard.
Under 5	74	41·78	...	41·44	...
5- 6	514	42·66	41·03	42·60	39·90
6- 7	80	44·41	44·00	44·97	44·40
7- 8	24	47·74	45·95	53·72	49·70
8- 9	28	49·70	47·05	59·74	54·90
9-10	651	51·16	49·70	61·72	60·40
10-11	32	53·43	51·84	68·86	67·50
11-12	18	55·40	53·50	76·33	72·00
12-13	19	57·80	54·99	86·33	76·70
13-14	605	58·38	56·91	87·90	82·60
14-15	14	61·55	...	102·07	...
15-16	...	...	...	...	...
over 16	41	67·05	...	128·16	...

GIRLS.

Age.	Number Examined	Average Heights in Inches.		Average Weights in Lbs.	
		Dumfries-shire.	Anthropo-metric Standard.	Dumfries-shire.	Anthropo-metric Standard.
Under 5	76	40·91	...	39·53	...
5- 6	472	42·15	40·55	41·35	39·20
6- 7	80	44·66	42·58	44·89	41·72
7- 8	29	46·60	44·45	49·75	47·50
8- 9	18	50·38	46·60	57·34	52·10
9-10	666	50·88	48·72	60·26	55·50
10-11	37	52·46	51·66	66·14	62·00
11-12	18	54·91	53·12	71·75	68·10
12-13	24	56·64	55·66	82·60	76·40
13-14	626	59·53	57·77	92·26	87·20
14-15	13	61·55	...	103·23	...
15-16	3	64·75	...	121·41	...
over 16	39	63·28	...	121·97	...

G. CLEANLINESS.

Pediculosis may be taken as a measure of this.

Number Examined.		Head.				Body.		Specials.
		Notified Cases.		Slight.				
		No.	%	No.	%	No.	%	No.
Boys	2100	43	2.05	24	1.14	1	0.05	330
Girls	2101	229	10.89	144	6.58	...	...	1308
Total	4201	272	6.47	168	4.00	1	0.02	1638

H. CONDITION OF THE SKIN.

(a) Head.

Number Examined.			Ringworm.		Impetigo.		Other Diseases.	
			No.	%	No.	%	No.	%
Boys	...	2100	2	0.09	12	0.57	19	0.90
Girls	...	2101	...	...	6	0.28	15	0.71
Total	...	4201	2	0.05	18	0.42	34	0.80
Specials	...		11		39		12	

Until 1936 cases of ringworm of the scalp had been uncommon. From June, 1936, to January, 1938, fifteen cases have been found, twelve of whom were in the Langholm district. The whole were treated with Thallium Acetate, and in all cases a cure has been effected. Two children have complained of pains in their joints and legs after the injection, but this soon wore off and no permanent ill-effect has been left.

(b) BODY.

Number Examined.	Ringworm.		Impetigo.		Scabies.		Other Diseases.	
	No.	%	No.	%	No.	%	No.	%
Boys 2100	...	...	...	..	10	0.48	47	2.24
Girls 2101	...	...	1	0.04	11	0.52	42	1.99
Total 4201	...	...	1	0.02	21	0.50	89	2.11
Specials	6		6		51		40	

I. NUTRITION.

Number Examined.	Above Average.		Average.		Below Average.		Very Bad.	
	No.	%	No.	%	No.	%	No.	%
Boys 2100	586	27.90	1051	50.05	459	21.86	4	0.19
Girls 2101	619	29.46	1111	52.87	370	17.61	1	0.04
Total 4201	1205	28.68	2162	51.46	829	19.73	5	0.11
Specials ...	...		...		78		5	

J. TEETH.

Number Examined.	All Sound.		1 to 4 Decayed.		5 or more Decayed.		Oral Sepsis	
	No.	%	No.	%	No.	%	No.	%
Boys 2100	471	22.43	1199	57.09	430	20.48	2	0.09
Girls 2101	461	22.08	1265	60.20	372	17.70	1	0.04
Total 4201	935	22.25	2464	58.65	802	19.09	3	0.07
Specials ...	...		...		3		13	

K. NOSE, THROAT, AND GLANDS.

(a) NOSE.

Number Examined.				Catarrh.		Nasal Obstruction.		Other Diseases.	
				No.	%	No.	%	No.	%
Boys	...	...	2100	72	3.43	8	0.38	...	...
Girls	...	...	2101	37	1.76	5	0.23	2	0.09
Total	...	...	4201	109	2.59	13	0.30	2	0.05
Specials	...	...	...	17		21		7	

(b) THROAT.

Number Examined.			Tonsils.		Adenoids.		Other Diseases.	
			Slightly Enlarged.	Markedly Enlarged.	Probably Present.	Present.		
			No. %	No. %	No. %	No. %	No.	%
Boys	2100		332 15.81	76 3.62	46 2.19	4 0.19	1	0.05
Girls	2101		352 16.75	103 4.90	41 1.95	4 0.19	...	...
Total	4201		684 16.28	179 4.26	87 2.07	8 0.19	1	0.02
Specials			5	620	139	27	5	

(c) LYMPHATIC GLANDS.

Number Examined.		Palpably Enlarged.		Markedly Enlarged.		Suppurating.		Cicatrices.	
		No.	%	No.	%	No.	%	No.	%
Boys	2100	511	24.33	6	0.29	...	...	11	0.52
Girls	2101	397	18.89	4	0.19	...	...	20	0.95
Total	4201	908	21.61	10	0.23	...	...	31	0.73
Specials	...	4		35		...		...

L. EXTERNAL EYE DISEASES.

Number Examined.	Blepharitis.		Conjunctivitis.		Corneal Opacity.		Strabismus.		Other Diseases.	
	No.	%	No.	%	No.	%	No.	%	No.	%
Boys 2100	17	0·81	3	0·14	2	0·09	22	1·05	6	0·29
Girls 2101	24	1·14	4	0·19	2	0·09	27	1·28	6	0·28
Total 4201	41	0·97	7	0·16	4	0·09	49	1·16	12	0·28
Specials	35		13		13		321		20	

M. VISUAL ACUITY.

Tested in children of 7 years and over.

Number Examined.	Good, 6/6.		Fair, 6/9-6/12.		6/18 or Worse.		Bad in one Eye only.	
	No.	%	No.	%	No.	%	No.	%
Boys 2074	928	44·74	928	44·74	92	4·43	126	6·07
Girls 2074	919	44·31	939	45·27	108	5·20	108	5·20
Total 4148	1847	44·52	1867	45·00	200	4·82	234	5·64
Specials ...	7		42		598		198	

The number of retinoscopies performed was 197, of which 56 were by the Consulting Oculist and 141 by the School Medical Officers.

Arising out of this, 122 parents were notified that their children required glasses. Of these :—

46 declared themselves necessitous.

72 paid for glasses.

3 desired the prescription to be sent to them.

1 did not reply.

Of the remaining 75 retinoscopies .—

31 were of children who were found not to require glasses.

4 were of children whose glasses did not require to be changed.

40 were duplicate examinations of those children referred to the Consulting Oculist.

N. EARS.

Number Examined.	Otorrhœa.		Wax.		Other Diseases.	
	No.	%	No.	%	No.	%
Boys ... 2100	10	0.48	29	1.38	7	0.33
Girls ... 2101	5	0.23	9	0.42	6	0.28
Total ... 4201	15	0.35	38	0.90	13	0.30
Specials	73		10		...	

O. HEARING.

Number Examined.	Slightly Deaf.		Markedly Deaf.	
	No.	%	No.	%
Boys 2100	12	0.57	4	0.19
Girls 2101	5	0.23	4	0.19
Total 4201	17	0.40	8	0.19
Specials	11		20	

P. SPEECH.

Number Examined.	Defective Articulation.		Stammering.	
	No.	%	No.	%
Boys ... 2100	22	1.05	7	0.33
Girls ... 2101	12	0.57	4	0.19
Total ... 4201	34	0.80	11	0.26
Specials	3		2	

Q. MENTAL CONDITION.

Number Examined.	Dull or Backward.		Mentally Defective.	
	No.	%	No.	%
Boys 2100	42	2.00	14	0.66
Girls 2101	24	1.14	12	0.57
Total ... 4201	66	1.57	26	0.61
Specials	3		11	

There are 3 special classes in the County with a total roll, at May, 1938, of 65 pupils.

The School Medical Officers have paid 20 visits to special classes during the year.

The number of mental tests performed was 95, and 16 children were certified as unfit to benefit by the instruction in the ordinary school.

R. HEART AND CIRCULATION.

Number Examined.	Organic Disease.				Functional Diseases.		Anæmia	
	Congenital.		Acquired.					
	No.	%	No.	%	No.	%	No.	%
Boys 2100	3	0.14	31	1.48	83	3.95	15	0.71
Girls 2101	6	0.28	31	1.47	115	5.47	15	0.71
Total 4201	9	0.21	62	1.47	198	4.71	30	0.71
Specials ...	14		122		78		37	

S. LUNGS.

Number. Examined.	Bronchitis and Catarrh.		Tuber- culosis.		Suspected Tuberculosis.		Tuberculosis Contacts and other Lung Diseases.	
	No.	%	No.	%	No.	%	No.	%
Boys 2100	56	2.66	...		4	0.19	15	0.71
Girls 2101	51	2.42	1	0.04	3	0.14	6	0.28
Total 4201	107	2.54	1	0.02	7	0.16	21	0.50
Specials ...	26		22		70		70	

T. NERVOUS SYSTEM.

Number Examined.	Epilepsy.		Chorea.		Infantile Paralysis.		Other Diseases.	
	No.	%	No.	%	No.	%	No.	%
Boys 2100	1	0.05	...		3	0.14	5	0.24
Girls 2101	1	0.04	...		...		...
Total 4201	2	0.05	...		3	0.07	5	0.11
Specials ...	18		...		15		8	

U. TUBERCULOSIS (NON-PULMONARY).

Number Examined.	Glandular.		Bones and Joints.		Abdominal.		Skin.	
	No.	%	No.	%	No.	%	No.	%
Boys 2100	...		4	0.19	1	0.05	...	
Girls 2101	...		2	0.09	...		...
Total 4201	...		6	0.14	1	0.02	...	
Specials ...	16		11		18		...	

V. RICKETS.

Number Examined.	Slight.		Marked.	
	No.	%	No.	%
Boys 2100	27	1.29	1	0.05
Girls 2101	8	0.38	1	0.04
Total 4201	35	0.85	2	0.05
Specials ... ..	...		...

W. DEFORMITIES.

Number Examined.	Congenital.		Acquired * (non-Rachitic).	
	No.	%	No.	%
Boys 2100	9	0.43	12	0.57
Girls 2101	8	0.38	49	2.33
Total 4201	17	0.40	61	1.45
Specials	11		13	

* Includes Defects of Posture.

X. INFECTIOUS AND CONTAGIOUS DISEASES.

Number Examined.	Mumps.		Rubella.		Chicken-Pox.		Whooping-Cough.	
	No.	%	No.	%	No.	%	No.	%
Boys 2100	...		...		...		...
Girls 2101	1	0.04	...		...		1	0.04
Total 4201	1	0.02	...		...		1	0.09
Specials ...	1		1		2		9	

Y. OTHER DISEASES OR DEFECTS.

Number Examined.					Number.	Per cent.
Boys	...	...	...	2100	76	3.62
Girls	...	...	...	2101	43	2.04
Total	...	...	...	4201	119	2.83
Specials	...	...	...	...	66	...

Z. VACCINATION.

Number Examined.					No Marks.	Per cent.
Boys	...	...	...	2100	716	34.09
Girls	...	...	...	2101	727	34.57
Total	...	...	...	4201	1443	34.34

REPORT
ON
DENTAL TREATMENT.

Report by the School Dentist.

1st Quarter :—August, September, and October, 1937.

Inspection :—Children between 5 and 10 years.

Kelloholm.	Cairn.	Megdale.
St. Michael's.	Davington.	Eskdalemuir.
Mennock.	Wanlockhead.	Beattock.
Hutton.	Sibbaldbie.	Shieldhill.
Ewes.	Westerkirk.	Wamphray.
St. Andrew's.	Loreburn-S. John's.	

Treatment :—

Kelloholm.	Cairn.	St. Michael's.
Davington.	Eskdalemuir.	Mennock.
Wanlockhead.	Beattock.	Hutton.

**2nd Quarter :—November and December, 1937, and
January, 1938.**

Inspection :—Children between 5 and 10 years.

Glencaple.	Amisfield.	Sanquhar.
Woodside.	Penpont.	Torthorwald.
Lockerbie Acad.	Maxwelltown.	Hoddam.
Brydekirk.	Breconbeds.	Middlebie.
Collin.		

Treatment :—

St. Andrew's.	Wamphray.	Loreburn-S. John's.
Sibbaldbie.	Shieldhill.	Westerkirk.
Ewes.	Glencaple.	Amisfield.
Sanquhar.	Woodside.	Penpont.
Torthorwald.	Lockerbie Acad.	

3rd Quarter :—February, March, and April, 1938.

Inspection :—Children between 5 and 10 years.

Nethermill.	Garrel.	Johnstonebridge.
Mount Pleasant.	Gretna Public.	St. Columba's.
Canonbie.	Gilnockie.	Harlaw.
Eaglesfield.	Gair.	Gretna Township.
Kirk.-Fleming.	Half-Morton.	Glenzier.
Cummertrees.	Applegarth.	Tundergarth.
Corrie.	Hightae.	Cogrieburn.
Barndennoch.	Burnhead.	Keir.
Hottsbridge.	Birleyhill.	Gatelawbridge.
Durisdere.	Hutton Hall.	Duncow.
Dalswinton.	Templand.	Annan Academy.

Treatment :—

Maxwelltown.	Hoddam.	Collin.
Brydekirk.	Breconbeds.	Middlebie.
Nethermill.	Garrel.	Johnstonebridge.
Mount Pleasant.	Gretna Public.	St. Columba's.
Canonbie.	Gilnockie.	Harlaw.
Eaglesfield.	Gair.	Gretna Township.
Kirk.-Fleming.	Half-Morton.	Glenzier.
Cummertrees.	Applegarth.	Tundergarth.
Corrie.	Hightae.	Cogricburn.
Barndennoch.	Burnhead.	Keir.
Hottsbridge.		

4th Quarter :—May, June, and July, 1938.

Inspection :—Children between 5 and 10 years.

Holywood.	Wauchope.	Kirkeconnel.
Enterkinfoot.	Speddoch.	Tynron Endowed.
Lochmaben.	Steilston.	Tynron Public.
Glenesslin.	Auldgirth.	Dunscore.
Langholm Acad.	Carronbridge.	Crossford

Treatment :—

Birleyhill.	Gatelowbridge.	Durisdeer.
Hutton Hall.	Duncow	Dalswinton.
Templand.	Annan Academy.	Holywood.
Enterkinfoot.	Lochmaben.	Glenesslin.
Langholm Acad.	Speddoch.	Auldgirth.
Kirkconnel.	Tynron Endowed.	Tynron Public.
Dunscore.	Crossford.	Carronbridge.

Summary of Work Done.

Number of schools visited for inspection ...	78
Number of schools visited for treatment ...	75
Number of children inspected	4828
Number of children requiring treatment ...	2259 (46·79%)
Number of children not requiring treatment	2569 (53·21%)

Of those requiring treatment, 1376 (62·55%) accepted and 824 (37·45%) refused treatment. (If Annan Academy were excluded the percentage of acceptance would be 65·07.) 86 of those for whom treatment was accepted were absent from school and did not receive treatment. 59 forms were not returned.

In addition to the 1376 routine cases, 176 special cases were treated, making a total of 1466 children receiving treatment.

The operative procedures undertaken were :—

Number of Fillings	467
Number of Extractions	2250
Number of Sealings	1

Percentage of Acceptances of Dental Treatment.

100%—Birleyhill, Gatelowbridge, Tynron Endowed, Tynron Public, Harlaw, Gair, Eskdalemuir, Davington, Sibbaldbie.

100–90%—Wamphray (96·43), Canonbie (93·3), Mount Pleasant (90).

90-80%—Wanlockhead (89·65), Tundergarth (89·37), Dunscore (87·5), Hoddam (87·10), Beattock (83·87), Glenesslin (83·3), Johnstonebridge, Speddoch (81·81), Cairn, Crossford, Applegarth (80).

80-70%—Kelloholm (78·84), Kirkconnel (78·72), Hutton (77·7), Amisfield (76·92), Half-Morton, Kirkpatrick-Fleming, Gretna Public, Enterkinfoot (75), Keir (73·3), Torthorwald (72·72), Holywood (72·2), Mennock, Gretna Township (71·43), Dalswinton (70·59), St. Columba's (70).

70-60% — Glenzier, Durisdeer (69·23), Sanquhar (67·47), Penpont, Barndennoch, Brydekirk, Auldgirth (66·6), Hutton Hall (65·38), Lockerbie Academy, Breconbeds (63·63), Loreburn-S. John's Special Class (63·16), Cummertrees (61·54), Cogrieburn, Middlebie (60).

60-50—Templand (59·09), Lochmaben (58·49), Glencaple (58·3), Burnhead, Lockerbie Academy Special Class (57·14), St. Michael's (56·82), St. Andrew's (54·11), Duncow (53·85), Maxwelltown (51·18), Woodside, Garrel, Collin (50).

50-40% — Langholm Academy (48·21), Nethermill (46·15), Eaglesfield (45·95), Annan Academy Special Class (44·4), Loreburn-S. John's (42·66), Annan Academy (41·07).

40-30%—Hightae (35·71), Carronbridge (30).

30-20%—Westerkirk (28·5), Ewes (25), Gilnockie (20).

20-10%—Shieldhill (16·6), Hottsbridge (14·29), Corrie (12·5).

0%—Steilston, Wauchope, Mcgdale.

